

PRESS CLIPPINGS

PUBLIC MEETINGS ON CONTAMINATION  
IN WATTS BAR RESERVOIR

MAY - JULY 1990

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# Radioactive elements in Watts Bar stir worry

## Report suggests DOE plutonium from Oak Ridge sites as a source

By FRANK MUNGER  
News-Sentinel Oak Ridge bureau

OAK RIDGE — Environmental activists Monday said new reports provide further evidence of radioactive contamination in Watts Bar Lake and raise the level of concern.

"I think there are real questions about how well DOE has protected the public," said Ralph Hutchison of the Center for Global Sustainability.

The center is a companion organization to the Oak Ridge Environmental Peace Alliance, which has studied the problems and activities of the Department of Energy's Oak Ridge plants in recent years.

Hutchison and Steve Smith, another group member, said they were surprised by the information on the amount of cesium and other radioactive elements, including plutonium, found in the sediments

of Watts Bar.

They were referring to detailed information compiled in a series of draft documents by Oak Ridge National Laboratory. The reports look at the off-site contamination caused by discharges from plants on DOE's Oak Ridge reservation.

While there has been much discussion about major spills and discharges of toxic mercury during the 1950s and '60s, much less is known about some of the other contaminants, the group members said.

In particular, they pointed to one report's discussion of plutonium

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The report's authors said the ratio of certain plutonium isotopes indicates that the contamination is not solely the result of atomic fallout from above-ground tests of nuclear weapons.

"This suggests that some of the plutonium disposed of or stored on (DOE's Oak Ridge reservation)

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Smith said he thinks that is significant, even if the highly toxic plutonium is found only in trace amounts.

He said information in the reports indicates there is reason to be concerned about health risks to those who live near the lake or use it for recreational purposes.

Officials confirmed that beryllium production at the Y-12 nuclear weapons plant was shut down last fall because of excessive contamination/ A4  
Oak Ridge National Laboratory resumed production Monday of yttrium-90, a valuable isotope used in cancer research/ A4

Just before the State Supreme Court's first woman sits on first case/A3

TUESDAY MORNING



# The Knoxville News-Sentinel

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- Oak Ridge National Laboratory resumed production Monday of yttrium-90, a valuable isotope used in cancer research/ A4

## Safety patrol members return from D.C.

## City law chief rules out automatic appeal of church's victory

### Action on tunnel ruling left to council

By ERIC VREELAND

Knoxville News-Sentinel Staff Writer

In an unusual move Monday, Law Director Tom Varian informed City Council's attorney that a city appeal of Calvary Baptist Church's land-use court victory will not be sought.

subsequent poll, and in light of the failure of a majority of council members to support an appeal, the Law Department will not seek an appeal from Chancellor (William) Inman's decision ... unless directed to do so."

The council's 30-day window to seek an appeal ends May 20. Van Martin, an attorney and member of Calvary Baptist, said Mayor Victor Ashe and the rest of the administration "are not

# DOE says more study needed before plutonium cleanup in Watts Bar Lake

The Associated Press

**OAK RIDGE** — A spokesman for the Department of Energy at Oak Ridge says the extent of plutonium contamination in Watts Bar Lake has to be established before it can be cleaned up.

The presence of plutonium has been known for years, and the amounts in Watts Bar are described in recent environmental assessment reports as "very small."

Nevertheless, the mere presence of the highly poisonous radioactive material is reason for concern, one environmentalist said.

DOE spokesman Steve Wyatt said Tuesday the plutonium is being studied carefully so that a plan to clean it up can be established.

"The bottom line on these reports is that this preliminary analysis indicates no imminent danger to the population," Wyatt said. "It does indicate that most of the contamination should be further evaluated. A site has to be fully characterized before you can do any

cleanup."

Watts Bar Lake is downstream of the DOE's nuclear weapons production plants in Oak Ridge. Plutonium is a heavy element used in nuclear weapons.

Clayton Gist of the DOE's environmental protection division in Oak Ridge said Tuesday that plutonium can be found in sediment under the lake and in some instances is suspended in the water.

He said the level of plutonium is one ten-thousandth of the amount that DOE considers a health risk.

But Ralph Hutchinson of the Center for Global Sustainability said any level of plutonium is cause for concern.

"I think there are real questions about how well DOE has protected the public," said.

Wyatt said he would not argue that there aren't environmental problems because of the weapons complex.

"There are discharges of radioactive material from the site, there's no question about that,"

Wyatt said. "These discharges primarily took place in the early days, in the late 1940s, '50s and early '60s. Some of the things I've seen make it sound like there was a leak last Friday. That's not true. These are things that occurred many years ago. We aren't talking about a current practice."

Gist said some of the plutonium may be circulating from the bottom sediments because of river currents or other natural causes, and in some cases may be leaching out of old landfills on the DOE reservation.

The DOE has been cleaning up those old landfills for several years, he said.

Ralph Brooks, manager of the Tennessee Valley Authority's water resources division, said water supplies should not be affected by the plutonium.

He said a solution is most likely to come from studies being required of DOE since the Oak Ridge site was placed on the national Superfund list of places that need to be cleaned up.

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# Plutonium problem not new, says DOE

by John Avery Emison  
Oak Ridger staff

Officials at the Department of Energy's Oak Ridge plants are expressing surprise at recent news stories about radioactive and heavy-metal contamination in sediments in Clinch River and Watts Bar Lake.

"Y-12 has to take the blame for the mercury (contamination)," said Robert L. Wesley, spokesman for the DOE nuclear weapons plant.

"But this was acknowledged in publicly available reports on

the Clinch River that date back into the early '60s and probably before then," Wesley said.

The presence of plutonium in lake sediments has been publicized for at least 10 years, according Martin Marietta Energy Systems spokesperson Gail Ward.

"We've know about the plutonium in Watts Bar since the '70s," Ward said.

News interest in the well-documented problems seems to have been piqued by three health-risk reports issued by the Oak Ridge National Labo-

ratory in March.

The reports were developed as part of ORNL's mandated environmental restoration program, according to program director Dr. Bruce L. Kimmel.

Kimmel also expressed surprise in the flurry of news stories and television segments on plutonium.

"The reference to plutonium was maybe one sentence in the whole report," Kimmel said.

He said the information on the release of plutonium was developed around 1980 as part of the site characterization for the Clinch River Breeder Reactor.

3/1990

## Risk to users: 'Very, very low'

# Lake lawsuit 'alive and well'

By CYNTHIA GARRETT  
Rockwood Editor

ROANE COUNTY — A lawsuit, expected to be filed within eight weeks by the Kingston law firm of McDonald and Hall and with attorney Gerald Lagen, is "alive and well and gaining momentum" according to attorney Gary McDonald.

Earlier reports the News obtained at a Kingston Water Board meeting that the suit had been dropped was incorrect, McDonald said.

The suit involves the release of contaminating agents into the air, soil and water supply, including the Clinch and Tennessee rivers, by DOE contractors Martin Marietta Energy Systems Inc. and Union Carbide.

A recently released report has raised more questions about levels of contamination in Watts Bar Reservoir and the types of contaminants that may be in lake sediments.

The Center for Global Sustainability, a companion organization to the Oak Ridge Environmental Peace Alliance, released a statement this week saying new reports indicate that the "Watts Bar Reservoir serves as a holding pond for mercury, cesium-137, and other metals and radionuclides."

They quote the report as calling Poplar Creek and the Clinch River "pipelines for contaminants released

from the plutonium disposed of or stored on the Oak Ridge Reservation is being transported into offsite areas."

Clayton Gist, an environmental protection agent for DOE, said the calculations that show the amount of plutonium in Watts Bar are very small fractions of a percent. The calculations are called the derived concentration guides.

Serious concerns are addressed in the statement released by the Center

for Global Sustainability about risks involved for those using Watts Bar for recreational purposes such as fishing and swimming.

"The plutonium is definitely there," Gist said, but the risk to people using the lake is "very, very, very low." The risk of getting cancer from the presence of those contaminants in the lake is between one chance in 10 million and once chance in a billion . . .

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presence of those contaminants in the lake, Gist said, is between one chance in 10 million and one chance in a billion of a cancer event taking place due to plutonium.

Regarding claims that the public has not been sufficiently protected, Gist said the Department of Energy publishes everything it knows in an Environmental Monitoring Report every year. The information in this report is "interpreted to the best of our ability," Gist said.

Steve Wyatt, DOE spokesman, noted DOE has acknowledged that past practices have led to contamination and also has released annual reports, including a history of radionuclide releases, published in 1988. "The numbers in this report are the same. This is not 'new' news," he said.

The new reports are "preliminary scoping studies based on previously released data based on many years of sampling performed on the Oak Ridge Reservation and adjacent waterways," Wyatt said.

"These documents will be used to plan an extensive site characterization and risk assessment to be performed in the next few years," he added.

In the next phase, Wyatt said, the department will take additional samples and perform additional analyses to determine the full extent of the contamination.

McDonald said that a number of organizations and groups may wish



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## **Risk**

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to participate in the lawsuit being filed locally, either in the entity of the group or as individuals, along with other individuals who are participating.

The McDonald and Hall firm has communicated with attorneys representing plaintiffs in similar cases at Rocky Flats in Denver, Colo., and in Cincinnati, Ohio at Fernald. Residents near Fernald won a settlement of \$78 million from DOE.

The lawsuit at Rocky Flats has been going on for about a year, and parties are still joining the suit, a process called "posturing." Two

new plaintiffs — two banks — have joined that suit. They claim their element of damage comes as a result of loaning money to build houses and businesses to be located where property is being contaminated by Rocky Flats, thus diminishing the value of their collateral.

Regarding the lawsuit being filed locally, McDonald said "anyone that appreciates clean air, clean soil and clean water" would have an interest in the suit. "I have clients that have contaminated wells and soil, and, by DOE's own admission, they're con-

taminating the air."

McDonald says the new report is "a further verification that we have real problems that have to be addressed. The assurances that DOE, Martin Marietta and Union Carbide have given us need to be severely questioned."

Once the suit is filed, when will it ever end? "It may never be finalized," McDonald said. "The litigation may be completed, but what if the contamination continues? This is a problem that has been a long time coming and it will be a long time being resolved."

# Early studies find no danger from nuke contaminants

## DOE sets more tests for Clinch, Watts Bar

By FRANK MUNGER  
News-Sentinel Oak Ridge bureau

OAK RIDGE — The Department of Energy stressed Tuesday that studies being developed to assess the environmental and health risks of pollutants in the Clinch River and Watts Bar Lake are still "very preliminary."

An agency spokesman, however, said early reports "do not

indicate any imminent danger to the population."

Steve Wyatt, an information officer in DOE's Oak Ridge office, said many more samples have to be taken and analyzed before a comprehensive picture of the risks can be drawn. In addition, a series of meetings will be held to gather public comment and discuss the findings.

Wyatt was responding in part to concerns expressed Monday by environmental activists about the level of radioactive contaminants in the reservoir, which is used for fishing and recreation.

Members of the Center for Global Sustainability said newly released reports raised questions about the risks of nuclear materials that were discharged by DOE's plants and are now in lake sediments downstream from the government reservation.

Wyatt said three reports recently prepared by Martin Marietta Energy Systems, DOE's chief contractor in Oak Ridge, are "scoping studies" based on environmental data collected in recent years. Those studies will be the base for additional work, which will determine the level of

risk to human health and recommend whether cleanup projects are needed to reduce the threat.

At this point, however, there is no reason to believe that boaters, skiers or others using the lake for recreational purposes face an elevated risk because of the pollution, Wyatt said.

The DOE spokesman said preliminary briefings with officials from the city of Oak Ridge and Roane County will be scheduled within the next few days to discuss the reports.

Please see POLLUTE, page A6

One of the reports lists more than 30 chemicals and 11 different radioactive substances as "potentially high priority contaminants in one or more reaches of the Clinch River environment." Those pollutants and others will be the focus of more definitive studies.

Not all of the contamination, however, may be attributed to upstream discharges from DOE facilities.

Concentration of at least two priority pollutants — thallium and arsenic — could be from agricultural and industrial activities unrelated to DOE's nuclear research and production facilities, the report said.

One of the chief pollution concerns to be studied is the cesium-137 that was discharged in significant quantities from Oak Ridge National Laboratory. Hundreds of curies of the radioactive material remain in the sediments of Watts Bar and measurable amounts of radioactivity can be found in

*file  
in  
environmental  
file*

# ATOMIC-UNIT LEAKS CITED IN TENNESSEE

## Effect on Water Is Disputed — Report Traces Seepage, Much From Years Ago

By MATTHEW L. WALD

Tons of toxic mercury and substantial amounts of the radioactive element cesium have spread from a Government nuclear installation in Oak Ridge, Tenn., and contaminated the sediment of a 39,000-acre reservoir system, a Government report says.

The report, dated March 1990, was obtained by a monitoring group called the Oak Ridge Environmental Peace Alliance, which made it public this week. The study, done for the Department of Energy by a contractor, says that most of the material entered the environment in the 1950's and early 60's, but that plutonium, a man-made radioactive material that is believed to cause cancer, may still be leaking into the Clinch River and Watts Bar Reservoir system, a popular area for fishing, boating and swimming. Experts say that plutonium, buried in shallow pits, may be migrating with water through the soil.

The Department of Energy and the State of Tennessee say the contamination poses no imminent risk to human health. But according to the Tennessee Valley Authority, which built the reservoir, the finding will mean either a vast cleanup or restrictions on activities such as dredging the shipping channel and construction to enlarge locks on the river formed by the reservoir.

Ralph H. Brooks, manager of the Tennessee Valley Authority's water resources division, also said that the dam that forms the reservoir had been built in part because the area is prone to flooding. "Those floods move a lot of sediment around," he said. "What happens then?"

### Fishing Not Banned

The lake supplies drinking water and is used for swimming. Government officials say those uses are safe now. If operations at the Oak Ridge Reservation dumped material that floats or dissolves in water, they explain, it would now have flowed downstream over the dam. Fishing has not been banned in the area because of radiation or mercury, but in some areas signs warn against consuming the fish because of an unrelated problem, contamination with PCB's, an industrial chemical.

*Not drawing*

Oak Ridge was established in 1942 as part of the Manhattan Project, the World War II effort to build the first atomic bomb. In the 1950's, it used vast amounts of mercury, a toxic metal, in a chemical process to purify a form of lithium useful in making fuel for hydrogen bombs.

The 1,400-acre reservation also includes a plant, shut in 1985, where uranium was processed to raise its concentration to enable it to sustain nuclear reaction. Also at the site is a reactor that makes radioactive isotopes for medical and research use.

Previous reports had documented major releases of hazardous material: much of the release occurred in 1956, when the Atomic Energy Commission emptied White Oak Lake, which it had built as a settling pond, to repair the dam.

### Some Experts Surprised

But some experts said that they were surprised by the amount of material that had spread. The new report says that that more than 85 percent of the cesium "released to the Clinch River and Tennessee River system has been retained by accumulation in Watts Bar Reservoir sediments." Extrapolating from that estimate on cesium, which is a waste produced from nuclear fission, the report says that about 75 metric tons of mercury has also accumulated in the sediments.

The study focused on those two materials, in part because they are easy to detect. But it noted other contaminants, including uranium.

In some spots, the level of contamination of the sediment is very high. For example, according to Arjun Makhijani, an expert on the Department of Energy's troubled weapons production complex, the uranium contamination levels found in some locations exceeds the worst rates at the Feed Materials Production Center in Fernald, Ohio, where the Government recently agreed to pay \$78 million in damages to neighbors.

But Clayton S. Gist, of the Environmental Protection Division of the Department of Energy's Oak Ridge Operations Office, said the maximum level of uranium contamination shown in the study was at a level that "does not bar public access."

### 'Giant Holding Pond'

Stephen A. Smith, a co-founder of the Oak Ridge Environmental Peace Alliance, said: "This report indicates that the Watts Bar Reservoir is serving as a giant holding pond. It may have to be declared some kind of national dump."

Cleaning it up would be difficult, he said, because dredging would disperse the sediments.

But an official at the Tennessee Department of Health and Environment, Earl C. Leming said, "We don't see an imminent threat to public health or the environment." He agreed about the contamination in the sediments, however, that "what to do with it once you've found it becomes a greater concern."

His department, he said, is negotiating with the Department of Energy to study health effects from chemicals and radiation among people in the area.

At the Department of Energy, Mr. Gist said that the new study was "a very preliminary scoping study." The purpose, he said, was to begin gauging the extent of contamination and to devise strategies to clean up or stabilize the contaminants.

*C.S. FERNALD*

## Watts Bar fight rages over leaks

OAK RIDGE (AP) — An environmentalist said yesterday the presence of plutonium downstream from a government weapons facility proves the Energy Department has been lax in running the plant.

DOE officials said the plutonium in Watts Bar Lake perhaps came from radioactive releases decades ago and is not a health risk.

But environmental monitors from the state and TVA said the situation deserves careful attention.

DOE officials at Oak Ridge, where parts for nuclear weapons are manufactured at the Y-12 plant, described the plutonium pollution as "very small."

Plutonium is an element used in nuclear weapons, and it is a dangerous poison. Watts Bar Lake is an impoundment of both the Tennessee River and the Clinch River, which drains the Oak Ridge site.

Clayton Gist of the DOE's environmental protection division in Oak Ridge said yesterday plutonium can be found in sediment under the lake, and in some instances is suspended in the water.

He said the level of plutonium is one ten-thousandths the amount DOE considers a health risk.

But Ralph Hutchinson of the Center for Global Sustainability said any level of plutonium is cause for concern.

"I think there are real questions about how well DOE has protected the public," Hutchinson said.

The DOE's findings of pollutants in Watts Bar were issued earlier this year as part of an on-going survey of the environmental impact on and around the Oak Ridge installation, said DOE spokesman Steve Wyatt.

"The bottom line on these reports is that this preliminary analysis indicates no imminent danger to the population," Wyatt said. He said detailed analyses of the environment around Oak Ridge are done continually.

"There are discharges of radioactive material from the site, there's no question about that," Wyatt said.

"These discharges primarily took place in the early days, in the late 1940s, '50s and early '60s. Some of the things I've seen make it sound like there was a leak last Friday. That's not true. These are things that occurred many years ago. We aren't talking about a current practice."

Gist said some of the plutonium may be circulating from the bottom sediments, and in some cases may be leaking out of old landfills on the DOE reservation.

The DOE has been cleaning up those old landfills for several years, he said.

Ralph Brooks, manager of the Tennessee Valley Authority's water resources division, said "water supplies should not be affected" by the plutonium.

He said plutonium has been identified in Watts Bar since at least 1983. "We are even more concerned now to find the plutonium may be more widespread than we thought," he said.

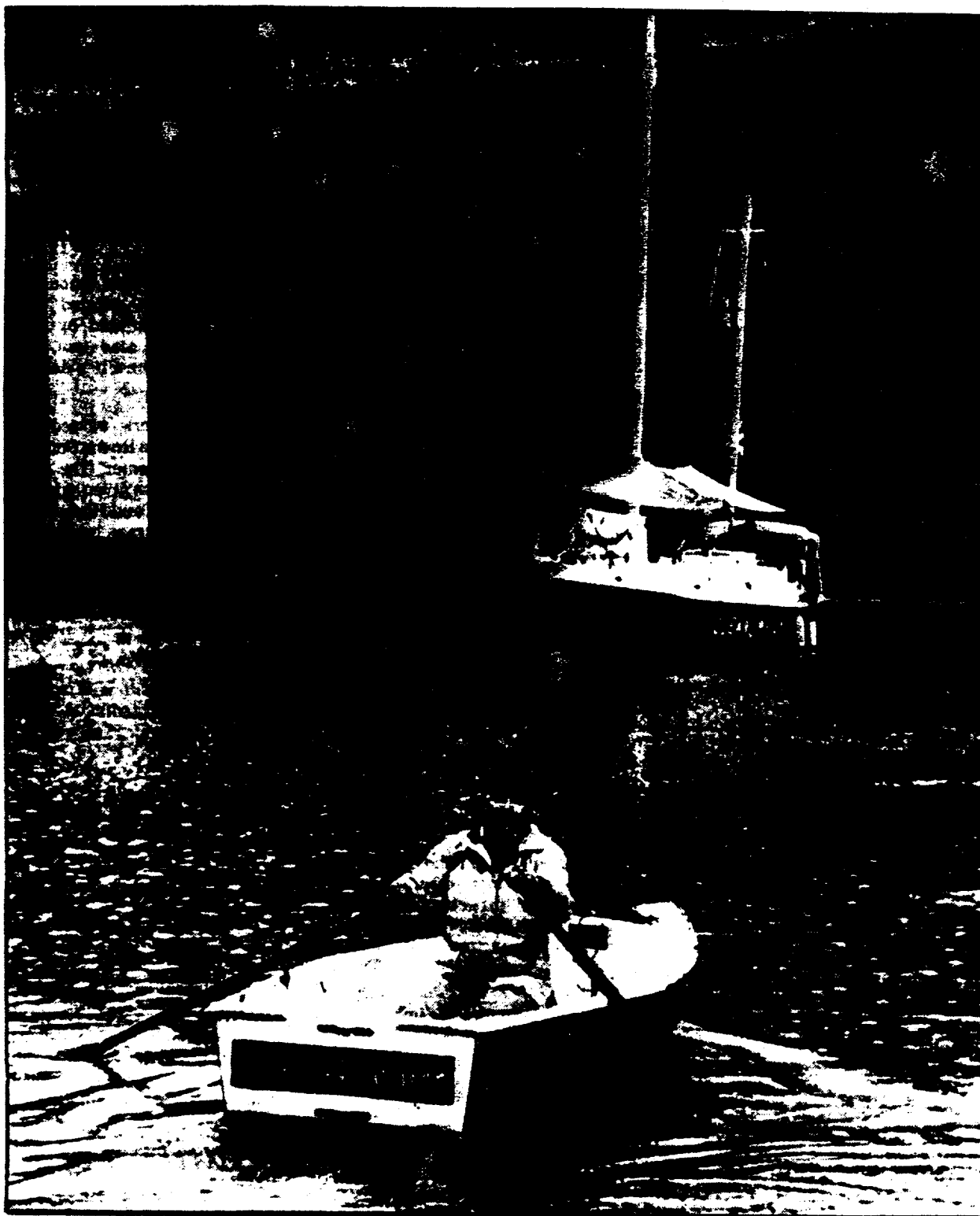
"But as you must realize, what to do about such widespread contamination is not an easy problem to solve," said Brooks.

A solution will come most likely from studies being required of DOE since the Oak Ridge site was placed on the national Superfund list of contaminated sites needing cleaning.

Earl Leming, DOE project coordinator for the state Department of Health and Environment, said the state does not consider the plutonium pollution "an imminent threat."

"We've known that since the start of the Manhattan Project there have been significant releases of material," he said.

The Manhattan Project produced the first atomic bombs during World War II. The Oak Ridge facility was constructed as part of that project. ■



**CIELO MYCZACK** rows out to the *Clean Water*, a sailboat she and husband Leaf built for traveling the Tennessee River in promotion of their Clean Water Project. Last Wednesday, the Myczacks and a group of protesters met with reporters near the Melton Hill Dam to talk about their concerns for con-

taminants they believe DOE is dumping into the water. They also expressed concerns for submerged warning signs that tell boaters about the radioactive area. (Staff photo by Bill Hall)

## Water questions continue

# Cities could become defendants

By PAT HOPE  
Editor

ROANE COUNTY — Kingston and Rockwood could both wind up on the defending end of a lawsuit if they choose to be passive or not join as plaintiffs in a suit against Martin Marietta Energy Systems Inc. and Union Carbide, who are the present and former DOE contractors in Oak Ridge.

The Kingston law firm of McDonald and Hall and attorney Gerald Largen expect to file suit within the next eight weeks because of what they deem serious water-quality problems.

The suit involves the release of contaminating agents into the air, soil and water supply along the Clinch and Tennessee rivers.

According to Largen, the News ar-

ticle carried April 27 saying the lawsuit had been dropped was apparently a misunderstanding because in a letter he delivered to Mayor Bob Humphreys, Largen suggested that if the city chose to run their own tests then the city would not need to be a plaintiff. However, Largen says if the city does not "do something," then it would probably become necessary to file litigation against the city for not giving citizens a safe water supply. The same could apply to Rockwood.

Recent reports in the Knoxville News-Sentinel, which quoted members of the Center for Global Sustainability, say that newly released reports raise questions about the risks of nuclear materials that were discharged by DOE's plants and are now in lake

sediments.

To prove their point, the group met at Melton Hill Dam yesterday and took reporters and cameramen by boat to where signs have fallen down into the water at White Oak Dam. Leaf and Cielo Myczack, who are traveling the river this year in a homemade sailboat to raise recognition about clean water, transported reporters and cameramen to the site, despite a steady rain.

One member of the group said they wanted DOE to take more responsibility for letting the public know about the contamination and to stop all future discharges that would contaminate the water more. The group asked DOE to fix the signs, which read "Radiation Hazard."

Please see Water, Page 2-A

## Water

Keep Out," so that boaters will be more aware of the danger.

The Myczacks, who visited Roane County last year, say the pollution is "breaking down the Earth's immune system." He says some estimates only give us 10-40 years to

correct what we're doing, and after that, the damage will be irreversible.

DOE has said they will hold a series of meetings, take more samples and try to draw "a comprehensive picture of the risks" in-

involved. An article in Wednesday's News-Sentinel said those meetings with Oak Ridge and Roane County officials would be planned in the next few days. At press time, no notice of a meeting date had been received.

# Report says Watts Bar contamination is a problem without answers for now

Editor's note: This story ran in the New York Times earlier this month.

By MATTHEW L. WALD

N.Y. Times News Service

Tons of toxic mercury and substantial amounts of the radioactive element cesium have spread from a government nuclear installation in Oak Ridge and contaminated the sediment of a 39,000-acre reservoir system, a new government report says.

The report, dated March 1990, was obtained by the Oak Ridge Environmental Peace Alliance, which made it public in early May.

The study, done for the Department of Energy by a contractor, says that most of the material entered the environment in the 1950s and early 1960s but that plutonium, a man-made radioactive material believed to cause cancer, may

still be leaking into the Clinch River and Watts Bar Reservoir system, a popular area for fishing, boating and swimming. Experts say the plutonium, buried in shallow pits, may be migrating with water through the soil.

The Department of Energy and the state of Tennessee say the contamination poses no imminent risk to human health. But according to the Tennessee Valley Authority, which built the reservoir, the finding will mean either a vast cleanup or restrictions on activities like dredging the shipping channel and construction to enlarge locks on the lake formed by the reservoir.

Ralph H. Brooks, manager of the TVA's water resources division, also said that the dam that forms the reservoir had been built in part because the area is prone to flooding. "Those flood flows move a lot of sediment around," he said.

"What happens then?"

The lake supplies drinking water and is used for swimming. Government officials say those uses are safe now.

If operations at the Oak Ridge Reservation dumped material that floats or dissolves in water, the officials say, it would by now have flowed downstream over the dam.

Fishing has not been banned in the area, but in some areas signs warn against consuming the fish because of unrelated contamination with polychlorinated biphenyls, an industrial chemical.

Oak Ridge was established in 1942 as part of the Manhattan Project to build the first atomic bomb. In the 1950s, it used vast amounts of mercury, a toxic metal, to purify a form of lithium useful in making fuel for hydrogen bombs.

The 1,400-acre reservation

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also includes a plant, shut in 1985, where uranium was processed to enable it to sustain nuclear reaction. Also at the site is a reactor that makes radioactive isotopes for medical and research use.

Previous reports had documented major releases of hazardous material; much of the release occurred in 1956, when the Atomic Energy Commission emptied White Oak Lake, which it had built as a settling pond, to repair the dam.

But some experts said that they were surprised by the amount of material that had spread.

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The study focused on those two materials, in part because they are easy to detect. But it noted other contaminants, including uranium.

In some spots, the level of contamination of the sediment is very high. For example, according to Arjun Makhijani, an expert on the Department of Energy's troubled weapons production complex, the uranium levels found in some locations exceeds the worst rates at

the Feed Materials Production Center in Fernald, Ohio, where the government recently agreed to pay \$78 million in damages to neighbors.

But Clayton S. Gist, of the environmental protection division of the Department of Energy's Oak Ridge Operations Office, said the maximum level of uranium contamination shown in the study was at a level that "does not bar public access."

Stephen A. Smith, a co-founder of the Oak Ridge Environmental Peace Alliance, said: "This report indicates that the Watts Bar Reservoir is serving as a giant holding pond. It may have to be declared some kind of national dump."

But an official at the Tennessee Department of Health and Environment, Earl C. Leming said, "We don't see an imminent threat to public health or the environment." But as for the contamination in the sediments, he agreed that "what to do with it once you've found it becomes a greater concern."

Wednesday, May 30, 1990

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# Watts Bar pollution study is on

By FRANK MUNGER  
News-Sentinel Oak Ridge bureau

OAK RIDGE — It may be years before authorities decide whether a cleanup of Watts Bar Lake is necessary, but the pollution picture should become clearer this fall.

Dr. Bruce Kimmel of Oak Ridge National Laboratory said water, sediment and fish samples are being taken from 15 sites in Watts Bar and other bodies of water near the Department of Energy's Oak Ridge reservation.

The samples will be analyzed for a wide range of radioactive materials and toxic chemicals, some of them carcinogens.

Kimmel, the project manager, said scientists expect to complete the sampling portion of the "phase one" study by the end of the fiscal year, Sept. 30. An assessment of risks to human health and the environment will follow.

Results of a preliminary effort were released earlier this year, compiling existing data from three decades of studies — along with updated samples in some instances — to outline general areas of concern and provide a baseline for future work. While scientists said there was no cause for alarm, the screening reports rated dozens of pollutants as potential hazards.

The DOE-sponsored studies are intended to evaluate the "off-site" consequences of discharges from federal facilities in Oak Ridge, but scientists also are looking at pollutants not associated with the nuclear plants.

The phase-one study will draw its information largely from new sample results obtained by standardized field techniques and laboratory analyses, Kimmel said. Drawing information from multiple research efforts, which was done for the preliminary studies, can cloud the conclusions because of the varied methodologies used, he said.

Environmental researchers probably will pare the number of pollutants on the risk list as the work becomes more detailed during the second phase, expected to begin next spring.

"I hope we can eliminate some," Kimmel said. "The analytical costs are just eating us alive on this project."

Kimmel said the phase-one study will analyze samples for the presence of 11 radionuclides — particularly cesium, strontium, cobalt, tritium and two isotopes of europium.

In addition, scientists will look for evidence of 17 organic compounds — headed by chlordane and two forms of PCBs — and 21 metals, including arsenic, antimony, lead and thallium.

The highest pollution levels are expected to be found in the White Oak Lake embayment, where discharges from Oak Ridge National Laboratory enter the Clinch River.

Phase two of the study will focus on a limited number of pollutants, analyze how they move through the food chain and refine the risks to humans and aquatic life. The direction of that part of the study, however, depends largely on the findings from phase one.

Because some pollutants have received much public attention — such as mercury discharges from the Y-12 nuclear weapons plant — and already are a subject of some health concerns, they likely would be included in follow-up studies even if scientists perceived them to be a low risk, he said.



# Offsite pollution answers needed too

The Department of Energy's Oak Ridge Reservation and its contractor, Martin Marietta Energy Systems, Inc., do an excellent job of providing information about environmental cleanup efforts on the Oak Ridge reservation, but a word about the extent of offsite pollution and what is being done in that regard has been brief at best. In talking about the Clinch River and Watts Bar Lake. Maybe it's time that the top management of our local DOE facilities consider the offsite pollution problems to the public. So far, unless I missed something, I have not been heard from as several articles have appeared in the local media beginning in January describing the accumulation of contaminated material in the Clinch and Watts Bar.

Y-12 Plant officials didn't waste much time in informing us in early May of the completion of the closure of New Hope Pond. Of course it's good to know that the 10-acre former holding pond has been closed in accordance with the Resource Conservation and Recovery Act and documents prepared for review and certification by Tennessee's Department of Health and Environment. At least we have reasonable assurance by this action that no more leakage will occur from the pond, built in 1954 as a holding area for waters of Upper East Fork Poplar Creek, which flows through Oak Ridge and into the Clinch River. It's a natural stream that originates at the plant and flows at the rate of approximately 7 million gallons a day.

New Hope Pond was removed from service as a waste management facility in November 1965, according to the information from the public relations department of ORNL. Since that time, thousands of tons of clay and a synthetic liner have been installed at the former pond site to prevent rainfall from percolating through the pond bed and leaching into the groundwater system.

The \$2.4 million project is the latest in a series of actions taken by DOE and the ORNL to close old waste management sites and further protect the environment from potential industrial pollutants, says the release of Robert J. Wesley.

In recent years, discharges to East Fork Poplar Creek have become increasingly dependent through the use of the central pollution control facility and other Y-12 Plant improvements designed to treat pollutants at source and prevent their release, officials at the plant declare.



Over  
the  
Ridge  
by  
Hayden Evans

Water from the East Fork Poplar Creek is now diverted to a plastic-lined 2.5-acre lake before leaving the government reservation. The improvements are verified by daily environmental sampling of the effluent and by the abundance of aquatic life found in the creek.

Other waste management areas closed at the Y-12 Plant within the past year include the Chestnut Ridge Security Plumb, the Chestnut Ridge Sediment Disposal Basin, Bear Creek Burial Ground Area A, and the Oil Land Farm, the release proclaims.

Fine, now the public needs to know the seriousness of some 30 chemicals and 11 different radioactive pollutants labeled as potential high-priority contaminants reportedly in the Clinch River. Reports have circulated for the past few months about mercury and plutonium contamination as well as radioactive cesium in the sediments of Watts Bar Lake. Further, we need to know what the government intends to do about the situation.

It is not enough for a spokesman from the public relations department or a scientist a few layers down in the hierarchy to say that studies are being developed to assess the risks and that the problems are not new. When property values decrease because buyers back away from contracts due to uncertainty and people worry whether or not it is safe to enjoy the lake's recreational opportunities, reassurance from the top is required. That is, if assurance on the positive side can be given, but if they can't, we should know that too. I suspect the positive far outweighs the negative.

In 1963, Congresswoman Marilyn Lloyd began an investigation into the mercury spill that eventually led to the identification and cleanup of contaminants on the Oak Ridge Reservation. The work is still under way, as evident by the report of the closing of the New Hope Pond. Of course, what Lloyd started was helped last year by the unveiling of Energy Secretary James

Watkins' five-year plan for environmental cleanup. Moreover, Lloyd and her staff are managers of DOE's Oak Ridge reservation, point with justifiable pride to the progress concerning the contamination question on the reservation. However, the emphasis is on cleanup of contaminants "on the reservation."

Lloyd, in speaking of the hearings she held to examine the extent of contamination "on" the reservation said, "The outcome of that hearing indicated there were many more questions than answers. The health effects were not known, the full extent of the contamination was not known, nor did we know best how to clean up the material."

Well, it appears that one can make the same statement today about the extent of contamination "off" the reservation in the Clinch River and Watts Bar Lake. And, as we all know, the contamination of the waters resulted from the upstream discharges from DOE facilities dating as far back as the '40s and '50s. So, if the openness thing is to continue, the environmental activists, news media and the people who live in the vicinity of the Clinch River and Watts Bar Lake should be given a status report on the contamination of the waters by the officials at the top.

Beautiful Watts Bar Lake has a 738-mile shoreline which makes it a center of water-rich recreation. It provides abundant opportunities for fishing, boating, sailing, swimming and water skiing with adjacent camping and picnicking areas. Is it a safe place today or not?

# Mercury blamed in death

## Father ate many fish from Watts Bar, son says; suit delayed again

By FRANK MUNGER  
News-Sentinel Oak Ridge bureau

Bill Robinson, a Dayton businessman, said he never expected to get rich by filing a lawsuit against the federal government.

His main interest, Robinson said, was warning people about the danger of eating fish from Watts Bar Lake. He thinks the mercury contamination in those fish killed his father and maybe his mother, too.

After 5½ years of repeated postponements, however, Robinson is still waiting to tell that story in court.

"The financial thing is sort of a pipe dream," Robinson, vice president and part-owner of Robinson Manufacturing Co., said during a recent interview. "If you don't (seek damages), you can't afford to hire lawyers. So far, it's cost me several thousand dollars anyway. I don't know if I'll ever recoup that."

On Dec. 13, 1984, he filed a "wrongful death" suit in U.S. District Court in Chattanooga against the Department of Energy and a parallel suit asking for \$8 million in damages from Union Carbide Corp., the former operator of DOE's Oak Ridge plants.

The suits were filed exactly one year after the death of Robinson's 75-year-old father, William E. Robinson.

According to an autopsy report by Dr. Robert L. Kendall, a Murfreesboro pathologist, the elder Robinson had "marked cerebral atrophy" and his brain tissue contained 12½ times the normal level of mercury.

Robinson said he asked the pathologist to look for mercury in

*"I guess it was sometime about 1978 that my wife and I realized there was something wrong with Mom and Dad. We realized that neither one of them had any sense of smell. They'd let food spoil, and they wouldn't do anything about it."*

Bill Robinson

his father's body because of news reports he had read in the spring of 1983 about mercury discharges from the government's Y-12 nuclear weapons plant in Oak Ridge. DOE had just released declassified documents showing that 2 million pounds of mercury at Y-12 could not be accounted for and that hundreds of thousands of pounds had been released into a local creek.

The creek eventually empties into the Clinch River and, on downstream, Watts Bar Lake, where Robinson's father did most of his fishing.

"Dad was a big fish eater," Robinson said.

"Sometimes they'd catch 110 or 120 sun perch and cook what they wanted and freeze the rest. They used to clean and wash the fish and put them in used milk cartons. They'd fill the cartons with water and freeze them. I don't know, but I've been told when you thaw and cook the fish they're just about like fresh."

Particularly after they retired in early 1977, Robinson's parents spent a lot of time in their camper-type trailer and fished on the upper end of Watts Bar near Kingston.

During the summer, they'd eat fish with slaw and potatoes just about every day, Robinson said.

Otherwise, it'd be two or three times a week, he said.

"I guess it was sometime about 1978 that my wife and I realized there was something wrong with Mom and Dad," Robinson said. "We realized that neither one of them had any sense of smell. They'd let food spoil, and they wouldn't do anything about it."

Robinson said he kept looking for something in his parents' house they might be a cause of the problem.

In the summer of 1980, while he and his wife were staying with his parents for a few days a time, Robinson saw something else that disturbed him — although he's reluctant to talk about it, even a decade later.

"Sometimes Daddy would get up in the middle of the night and, well, dance through the house ... on his tiptoes," Robinson said. "I wouldn't have believed that if we hadn't been there. There was something wrong there."

Later, his father's mind started to wander.

Some people, he said, may believe the problem was Alzheimer's disease. That may be true, Robinson said, but he believes that the mercury contamination in those fish helped trigger it.

The same goes for his mother,

who developed Parkinson's disease, he said. She died last November at age 78. Robinson wonders if mercury poisoning might not have precipitated or contributed to her health problems.

The Robinson trial was postponed again last month to allow lawyers more time to prepare for the case. It was reset for Sept. 24.

Robinson said he hopes this time it really happens, and that he gets a chance to tell the story to a jury. Many of the witnesses are getting old.

Some of them, including the pathologist who did the autopsy on his father, have already died, and Robinson questions whether the government lawyers are purposely delaying the trial.

"I think that's one of the defenses for any kind of a crime, just to put it off longer and longer and maybe just everybody will forget about it," he said.

The Department of Energy, which also is paying the legal fees for Union Carbide, declined to comment on the case.

The federal agency, however, has issued a number of statements in recent times about pollution in Watts Bar. While DOE acknowledged the need to study and evaluate the risk of the toxic discharges from the Oak Ridge plants, federal officials said studies conducted so far do not indicate any imminent health threat to people using the lake for fishing or recreation.

"The water up there is real clear and pretty, or at least it used to be," Robinson said. "But it's not a cut-and-dried thing. We want to warn people not to eat the fish. That's what we're trying to do. Something isn't right."

Wednesday, June 13, 1990 •

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## DOE to hold public meetings on Watts Bar

By **FRANK MUNGER**  
News-Sentinel Oak Ridge bureau

**OAK RIDGE** — Because of public concerns about contamination in Watts Bar Lake, the Department of Energy will hold open meetings later this month to discuss plans for pollution studies and answer questions from area residents.

The meetings will be held June 26 at the Holiday Inn in Roane County, at the Harriman exit off Interstate 40, and June 27 at the American Legion Hall near Spring City in Rhea County.

Both sessions will begin at 7 p.m.

"We felt the need to communicate with the public on some of these issues," DOE spokesman

Steve Wyatt said.

Wyatt said the agency had received a number of calls from residents and owners of resorts along Watts Bar following recent news reports. Officials with the state Department of Health and Environment also have received calls from people wanting to know more about the situation.

A study prepared by DOE's chief contractor, Martin Marietta Energy Systems, was released earlier this year. The report assessed the level of pollution in Watts Bar and other "off-site" locations as a result of discharges from the government's Oak Ridge nuclear facilities.

The report rated dozens of pollutants as potential hazards. The list included radioactive ma-

terials, such as cesium-137 and a range of hazardous chemicals.

DOE officials emphasized, however, that they do not believe the pollution in Watts Bar poses an imminent threat to the health of people using the lake for fishing or recreational purposes.

Much of the pollution discharged from the Oak Ridge plants over the past five decades has accumulated in the sediments of Watts Bar, some of it a couple or more feet deep.

The potential threat of the pollution is to be examined more closely in a series of DOE-funded studies planned for the next several years.

State environmental officials expect to participate in some health-effects studies in the area.

## Martin says Watts Bar is safe for recreation

by Mike Fowler  
For The Oak Ridger

A Martin Marietta Energy Systems official told members of the Anderson-Roane County Professional Society Wednesday that radioactive contamination of Watts Bar Lake is minimal and the lake is safe for recreation.

Gale Ward of Energy Systems led an open discussion of the problem at the meeting of the society at Western Sizzlin' restaurant in Harriman.

Ward substituted for Bruce Kimmell, head of environmental studies at Oak Ridge National Laboratory, who was originally scheduled to speak but was called to Washington unexpectedly.

Ward said most TV and press coverage of the problem consisted of information from old reports based on data collected years ago. Describing the coverage as sensationalized, Ward said it resulted in giving much false information to the public.

Present studies being carried out at ORNL, she said, show that the risk to humans from contamination in the Watts Bar basin is minimal. "I would have no problem fishing or swimming in Watts Bar Lake," she said. "I would even eat fish from there."

"Plutonium is not a problem here. Any other heavy metals in the system are buried under a meter of sediment and present no problem. Reports of suspended plutonium are ridiculous. As far as I can tell, we have one of the best monitoring systems available and we make all our data freely accessible to the public."

"We have nothing to hide, and if there were any danger, we would be the first to say so," she said.

Public hearings on the subject were originally scheduled for June 26 and 27 in Harriman and Spring City but are being rescheduled by Energy Systems because the Tennessee Conservation League has planned meetings on both days about the same situation. The new hearing dates will be announced later.

## No imminent Watts Bar hazard, DOE tells 2 Tennessee lawmakers

News-Sentinel Washington bureau

WASHINGTON — A Department of Energy official Thursday assured Sen. Albert Gore Jr. and Rep. Marilyn Lloyd that there is no imminent health hazard in the Watts Bar Reservoir as long as sediment in the deep water is not disturbed.

Much pollution discharged from the Oak Ridge National Laboratory in the past 30 years settled in the sediment at Watts Bar Lake, including mercury and radioactive cesium-137.

The Department of Energy plans to conduct other tests, and Gore said he will be monitoring the progress.

Leo Duffy, DOE's director of

environmental restoration and waste management, briefed Gore and Lloyd, both Democrats, on test results to date in separate meetings.

Gore said there remains a limit on the number of fish that one should consume from the lake because they contain traces of mercury and PCBs.

"I was encouraged by the thoroughness of their work," he said. "The basic problem is that any effort to remove the (deep water) sediment would stir it up and create a worse problem."

Lloyd, whose district stretches from Oak Ridge to Chattanooga, said ORNL "is far ahead of other DOE facilities in terms of clean-up."

## Meeting about lake scheduled

By PAUL PAGE  
Assistant Editor

**OAK RIDGE** — Two meetings for the informing of the public on the result of Watts Bar Lake contamination studies have been scheduled by the Department of Energy.

The first will be at the Holiday Inn at Harriman on Tuesday, June 26, and the second will be at the American Legion Hall at Spring City on Wednesday, June 27. Both meetings will be at 7 p.m.

A DOE spokesman said the agency feels the "need to communicate with the public on" recent news reports concerning pollution of the lake. Some of the reports resulted from DOE's release of information from its official study of the conditions. The report rated many pollutants as "potential" hazards, but they also emphasized DOE does not believe the pollution poses any imminent threat to persons using the lake for fishing or for any recreational purpose.

In recent weeks, DOE representatives have commented on the pollution situation at several meetings of professional groups. However, the meetings now scheduled for Harriman and Spring City are the first to be announced as being directed to the general public.

Jim Rogers, author of the 1988 Oak Ridge Reservation environmental statement, recently reported a decrease in both air and water pollution from 1984 to 1988. He made the report in addressing the Roane County Environmental Review Board.

Dr. Bruce Kimmel of DOE told at the same meeting a study now being conducted has not indicated there is a "short-term present, immediate danger." He said the study has found cesium 137 and mercury in the lake system, usually in the old river channel at a depth of about 35 feet. He said the concentration is found "about 50 centimeters deep in the soft sediment." Thus it is hard to reach the contamination, he said.

Most of the cesium 137 and mercury had been released in the mid to late 1950s, the study said. It also said contamination comes from all branches flowing into the Watts Bar system.

Kimmel also reported Martin Marietta Energy Systems Inc. at Oak Ridge is meeting with TVA and the Oak Ridge Nuclear Laboratory to discuss the situation. Their discussion involves what effect there would be if TVA were to widen the locks at the dam and disturb the contaminated sediment. No such lock program has been announced.

The DOE study is identified as the Clinch River remedial investigation. It includes gathering information as for site characterization, sampling, risk analysis as to humans, more extensive sampling and analysis, and preliminary identification and evaluation of corrective measures.

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Friday, June 15, 1990  
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## Environmentalists plan to protest lake contamination

KINGSTON — In what they say is "an attempt to bring awareness," to the citizens of Roane County, the Foundation for Global Sustainability will sponsor a demonstration at Kingston City Park Friday, June 15 at 10 a.m.

The group, which will meet at the swimming area of the park, will be joined by demonstrators from a Chattanooga environmental group called Earthworks.

Spearheaded by Leaf Myczack, founder of the Clean Water Project, the demonstration, according to him, is to make people aware of contamination in the lake and an advisory issued by the Department of Health and Environment about fish consumption from Watts Bar and other TVA reservoirs.

According to Paul Davis, director of the division of water quality control with DHE, the advisory has not changed since its April 8, 1989 release, but, he said, while the department is still advising against eating fish from the lake, there's "no reason to believe there's any potential for any adverse health impact from normal contact with the lake water or incidental ingestion of the water," in other words, there is "no reason not to use it for recreational purposes."

The advisory against fish consumption said, "Watts Bar Reservoir, Tennessee River (Kingston to Lenoir City): Catfish, striped bass and striped bass-whitebass hybrids should be considered unsafe for consumption."

In another part of the report, "a

precautionary advisory," says, "Limit consumption of sauger, carp, whitebass, and smallmouth buffalo to no more than 1.2 pounds per month. Limit consumption of largemouth bass, which weigh more than 2 pounds, to no more than 1.2 pounds per month. Limit consumption of catfish to no more than 1.2 pounds per month."

The local business community has taken issue with the demonstrators for all the adverse publicity brought to the lake.

Jim Bilyak, president of the Roane County Chamber of Commerce, said, "It is totally irresponsible and dangerous to take limited information, much of which requires technical skills to interpret, and build a case to match one's mindset. There are much more positive ways to work for a clean environment."

A public meeting will be held Tuesday, June 26 at the Holiday Inn for the purpose of informing the public further on this subject. (See related story, this page)

SUNDAY MORNING

# The Knoxville News-Sentinel

JUNE 17, 1990

## Lake business dries up Watts Bar resorts say pollution scare 'devastating'

By FRANK MUNGER  
News-Sentinel Oak Ridge bureau

Pollution reports are scaring away tourists and draining the economic life out of Watts Bar Lake, suffering resort owners say.

"We're being devastated," said Steve Speciale, president of Rhea Harbor, a lakeside resort near Spring City. "It's getting to the point where we're going to lose some businesses on the lake, myself included."

Slow dock traffic and empty cottages are symbols of a decline in business that

began earlier this year and appears to be getting worse. Reservations for the peak months of July and August are down dramatically.

Owners and operators blame the situation on widespread news reports — locally and nationally — that focused on pollution in the lake resulting from upstream discharges at the Department of Energy's Oak Ridge nuclear facilities.

"We're having cancellations and a very noticeable decrease in the number of inquiries based on our advertisements," Carl Hessebach, a general partner at Watts Bar Resort, said.

"What we have here is an economic problem," Hessebach said. "It's a little early for the word 'disaster,' but if nothing happens, that's what it's going to turn into."

A number of resort owners said business is down 20 percent or more from last year. That's almost unbelievable, they said, because the summer of 1989 was an awful season largely washed out by a series of floods.

Speciale said 1990 was considered a "make or break" year by many folks.

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The Knoxville News-Sentinel, Sunday, June 17, 1990

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# Watts

Continued from page A1

"Everybody was looking at this year to make up their losses from last year," Hessebach said.

Some of the Watts Bar business operators said they don't want to appear to be anti-environment, but they believe the risks of the lake's pollution have been greatly exaggerated.

"It's the radical attitudes of the activists," Speciale said. "If the DOE is lying or not telling us the truth, then maybe we do have a severe problem. But I can't conceive of that, and we can't run our lives for the next 15 to 20 years on the belief that our government officials are not telling us the truth."

Based on reports from DOE, the Tennessee Wildlife Resources Agency and state environmental officials, he said, "We do not believe we have an imminent health problem at this time."

Nonetheless, resort officials said there's no doubt what is keeping the summer tourists away.

"The fishing's been good and it's not because of the weather," said Greg Harding, owner of Sam's Boat Dock.

Harding said his business was down 64 percent in April after some of the Watts Bar pollution stories received attention. Last month was better because of fishing tournaments and other activities already planned, he said.

"But it's hurt real bad," Harding said. "People who've booked here regularly for years didn't even bother to call."

The lake resorts ordinarily draw much of their business from Ohio, Georgia and other states in the region, but stories of Watts Bar pollution have appeared widely.

Hessebach said one regular visitor sent a clipping from a Dayton, Ohio, newspaper, which ran a story on Watts Bar pollution by The New York Times. He said he sent it to the Tennessee Department of Tourism as an example of the problems faced by the Watts Bar resorts.

Resort operators said they want the state to take some action — either provide financial relief to the businesses or do something to help counter the negative reports about Watts Bar.

"If the state does not decide to do something immediately — I mean in the very near future — we will see the rest of this season go down the tubes," Hessebach said. "And when it goes, the state tax base will suffer, too."

# Rep. Lloyd sees no health danger at Watts Bar

by John Zicconi  
Oak Ridge staff

U.S. Rep. Marilyn Lloyd, D-3rd District, said she feels there is no danger to human health from heavy metal contamination of Watts Bar Reservoir and the Clinch River.

Lloyd met Thursday with Department of Energy waste management officials in Washington, D.C., to discuss the problem.

After the meeting, Lloyd said she was satisfied with DOE's report and believes the mercury contamination in the reservoir's sediment poses no threat

to human health.

A press release from Lloyd's office following her meeting with Leo Duffy, DOE director of Environmental Restoration and Waste Management quotes Lloyd as saying, "After reviewing the results of an extensive investigation done by a team of DOE and Oak Ridge scientists, Mr. Duffy has assured me that there is no risk to human health. For the moment, Watts Bar Reservoir is safe."

"The contaminants are deep in the sediment of the main river channel and all sources have been identified. There are no contaminants in the shallow water areas, and the dredging

that is currently being done there for recreational purposes and work on the locks of the dam will not exacerbate the situation."

Mercury and other heavy metals from DOE facilities in Oak Ridge leaked into Tennessee waterways during the 1960s. Lloyd said a health risk assessment study released by DOE in March found the reservoir to be safe.

However, reports that nuclear contaminants are in Watts Bar Lake have harmed businesses that depend on tourists, area business owners say.

"Everybody was looking at

this year to make up its losses from last year," said Carl Hessenbach, a general manager at Watts Bar Reservoir. But many estimate bush to be down 20 percent or more from last year, which was poor season because of floods.

"We're having cancellations and a very noticeable decrease in the number of inquiries based on our advertisement," Hessenbach said.

"We're being devastated," said Steve Speciale, president of Rhea Harbor Lakeside resort. "It's getting to the point where we're going to lose some

Rep. Lloyd

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Continued from Page 1  
businesses on the lake, myself included."

Business owners say they believe the risks of the pollution have been greatly exaggerated.

"It's the radical attitudes of the activists," Speciale said. "If the DOE is lying or not telling us the truth, then maybe we do have a severe problem."

"But I can't conceive of that, and we can't run our lives for the next 15 to 20 years on the belief that our government officials are not telling us the truth," he said.

"I would have no problem fishing or swimming in Watts Bar Lake," said Gale Ward, spokeswoman for Martin Marietta Energy Systems, which operates the Oak Ridge facilities for DOE. "I would even eat the fish from there. Plutonium is not a problem here. Any other heavy metals in

the system are buried under a meter of sediment and present no problem. Reports of suspended plutonium are ridiculous."

The Tennessee Wildlife Resources Agency has issued recommended limitations on fish consumption in the reservoir and Tennessee River but the agency has nothing to do with heavy metals leaked by DOE, said Greg Denton, an environmental specialist with the Tennessee Division of Water Pollution Control. Limitations were established years ago because levels of polychlorinated biphenyls, or PCBs, were found to be slightly elevated, although still below federal safety levels, he said.

"We screen for metals and have not found any at levels that would justify issuing an advisory," Denton said.

TWRA recommends that per-

sonal consumption of catfish and sanger caught in the reservoir and the Clinch River from Melton Hill Dam to Kingston be limited to 1.2 pounds per month because of PCBs. The PCB levels of fish in this area were found not to exceed one part per million. The federal Food and Drug Administration as well as the Environmental Protection Agency consider PCB levels higher than two parts per million to be dangerous, Denton said.

Cathy Kalmiak, DOE spokeswoman in Washington, D.C., said the TWRA recommendations are an example of normal safety procedures undertaken by local authorities and that recreational use of the reservoir and river poses no threat to people.

"The contamination is way down in the sediment and it would take the sediment rising

to the surface to present a problem," she said.

Lloyd held a 1983 hearing addressing concerns over contaminants in the reservoir. A task force comprised of representatives from the Tennessee Valley Authority, DOE, the U.S. Geological Survey, the Tennessee Department of Health and Environment, the U.S. Corps of Engineers and the EPA was formed to deal with the problem.

"This task force is still in place, and they must be consulted before any dredging activities can occur," Lloyd said in the release. "We do not anticipate that the contamination will move downstream. Watts Bar Dam is acting as a barrier and an average of 1 inch of sediment is being deposited a year, which further reduces the health hazard."

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June 18, 1990

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# Hearing on lake slated

By PAUL PAGE  
Assistant Editor

**HARRIMAN** — Residents of Roane County will get the word from Martin Marietta Energy Systems Inc. on Monday, June 25, regarding the pollution in Watts Bar Lake.

It will come in the first public meeting report on the condition of the lake, although there have been similar reports made to professional groups in the area. The hearing will be at 7 p.m. at the Holiday Inn.

Originally the meeting was set for June 26, but it was advanced one day in order to avoid conflict with a session of the conservation subcommit-

tee of the state House of Representatives. That meeting, relating to the presence of PCBs, will be held at Watts Bar Dam resort near Spring City.

A second Martin Marietta meeting will be held June 27 at 7 p.m. at the American Legion Hall at Spring City. It is to be more directly concerned with the area of the lake nearest the dam.

Steve Wyatt of the Energy Systems community relations department announced the dates for the Harriman and Spring City meetings. Details for the two meetings will be announced later.

# Lloyd report: Watts Bar Lake waters are safe

WASHINGTON — U.S. Rep. Marilyn Lloyd recently requested information from Leo Duffy, Department of Energy director of Environmental Restoration and Waste Management, on contaminants in Watts Bar Reservoir.

"After reviewing the results of an extensive investigation done by a team of DOE and Oak Ridge scientists, Mr. Duffy has assured me that there is no risk to human health. For the moment, Watts Bar Reservoir is safe. The contaminants are deep in the sediment of the main river channel, and all sources have been identified.

"There are no contaminants in the shallow water areas, and the dredging that is currently being done there for recreational purposes and work on the locks of the dam will not exacerbate the situation," said Lloyd.

Lloyd held a hearing in 1983 which addressed concern over contaminants in the reservoir. As a result of this hearing, a task force comprised of representatives from the Tennessee Valley Authority, DOE, the U.S. Geological Survey, the Tennessee Department of Health and Environment, the Corps of Engineers and the Environmental Protection Agency was formed to deal with the problem of contaminants in the reservoir.

"This task force is still in place, and they must be consulted before any dredging activities can occur," Lloyd said.

The Tennessee Wildlife Resources Agency is currently issuing recommended limitations on fish consumption with each fishing license and has posted data on fish consumption throughout the area. The biggest health risk in fish consumption is to nursing mothers.

"In 1983, we required DOE to shut down everything that was contributing to contamination and required DOE to come forward with identification of the contaminants and plans for cleanup. We have made great progress since then. Oak Ridge is far ahead of other DOE facilities in terms of cleanup. We do not anticipate that the contaminants will move down stream. Watts Bar Dam is acting as a barrier, and an average of one inch of sediment is being deposited a year, which further reduces the health hazard," Lloyd concluded.

## **DOE sets 2 meetings on Watts Bar.**

**by John Avery Emison**  
Oak Ridger staff

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The Department of Energy will hold two public information meetings next week on the recently publicized pollution hazards in Watts Bar Lake.

DOE and Oak Ridge National Laboratory officials will make presentations at the meetings scheduled in both Roane and Rhea counties.

"The reason we are holding these meetings is that we have received a number of inquiries from people in the area," DOE spokesman Steven Wyatt said.

Robert Sleeman, DOE's director of environmental restoration efforts in Oak Ridge, and Dr. Bruce E. Kimmel, an ORNL scientist and co-author of three reports on Watts Bar contamination, will make formal presentations at the meetings.

Wyatt said the presentations will focus on the potential ecological and human health risks associated with pollution in the lake.

The three ORNL reports show that Watts Bar sediments contain minute amounts of plutonium, heavy metals and other toxic chemicals, which came from operations on the Oak Ridge reservation.

Wyatt said Sleeman and Kimmel will be on hand to answer specific questions an hour before the meetings begin.

The Roane County meeting will be held at 7 p.m. Monday in Harriman at the Holiday Inn on U.S. Highway 27.

The Rhea County meeting will be held at 7 p.m. June 27 in Spring City in the American Legion Hall.

The Roane County News, Wednesday, June 20, 1990

## Watts Bar Lake contamination

# Public meetings to include DOE, TVA, TWRA officials

By PAUL PAGE  
Assistant Editor

ROANE COUNTY — Three public meetings are scheduled for next week for the presentation of information on any contamination in Watts Bar Lake.

The meetings follow the publication of portions of official reports regarding pollution.

One of the meetings, to be held June 26-27 at Watts Bar Resort near the TVA dam, was arranged at the request of marina and resort owners who said their business is being hampered by reports of pollution.

The first of these two meetings is scheduled for 6:30 p.m. Tuesday and the second for 9 a.m. Wednesday. Participants will include members

of the House subcommittee on health and the environment.

It was arranged at the urging of Rep. Shirley Duer of Crossville, who is a native of Meigs County, where some of the resorts are located. Her district also includes Rhea County, where numerous other resorts are situated.

Other participants will include

representatives of the Department of Energy, the Tennessee Wildlife Resources Agency, Tennessee Valley Authority and others.

Meanwhile, the DOE announced public meetings June 25 in Roane County and June 27 in Rhea County on studies of sediment contamination in the Clinch River and Watts Bar Lake downstream of DOE sites

at Oak Ridge.

The two DOE meetings will focus on the recently completed preliminary studies on cesium and mercury contamination results from past DOE operations and waste disposal activities and potential ecological and human

Please see Lake, Page 2-A

## Lake

health risks. The preliminary studies indicate that there is no imminent risk to the public as a result of the contamination.

The Roane meeting will be held Monday, June 25, at 7 p.m. at the Holiday Inn at Harriman, and the Rhea meeting will be June 27 at 7 p.m. at the American Legion Hall on West Jackson Street in Spring City.

At the two DOE meetings, the public will have the opportunity to ask questions on the studies following the presentation by DOE and Martin Marietta Energy Systems Inc. representatives. The representatives also will be available after each meeting.

The recently completed studies are part of a comprehensive environmental investigation of offsite surface water contamination. Information from these studies will be used to plan extensive characterization and risk assessments as part of

Speakers at the DOE meetings will include Robert Steeman, director of DOE's environmental restoration division, and Dr. Bruce Kimmel, program manager for Martin Marietta.

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# Another view of the slowdown on Watts Bar Lake

OAK RIDGE — It's the lack of quality facilities — not the fear of pollution — that is keeping tourists away from Watts Bar Lake, according to Randy Jones.

Jones, general partner of Harbor Point, a new lakeside resort near Rockwood, said he was dismayed by a story in Sunday's edition of The News-Sentinel.

The page-one story chronicled the complaints of Watts Bar resort owners, who said pollution reports had scared away tourists and threatened the lake's economic life.

Jones pooh-poohed that notion.

He said the term "resort" is a misnomer when used to refer to many of the lakeside businesses. Some of them are nothing more than antiquated, rundown "fish camps" that haven't been improved in decades, he said.

"It's like staying in a doghouse fish camp out of the '30s," Jones said. "They offer the same thing to people year after year. Why would you go to Watts Bar when they could go to Nashville or Atlanta or Dollywood?"

Part of the problem is marketing, Jones said. For too many years, the only thing Watts Bar businesses offered to tourists was clean water, he said.

Now, because of concerns raised about pollution in the lake, that single-minded approach is "coming back to haunt them," Jones said.

"Things are different now and they used to be," he said. "People, even blue-collar people, want upscale operations. You have to put some



**Frank Munger**

money into the place and offer something of community."

Blaming the slowdown in trade on the pollution report is ridiculous, he said.

Like some of the other resort owners, however, Jones thinks there is a pollution risk in Watts Bar has been exaggerated. He thinks it's a clean lake.

"I've never seen any cleaner water," he said. "Regardless, other lakes have pollution, too, and they're surviving."

"It's not the pollution," he said. "Heck, the Big change is bigger threat to Watts Bar than that. When football starts, the whole lake is barren."

Jones said he thinks the main reason some owners are crying is that the pollution reports have made it more difficult to sell their "moon and pop" properties.

"They just sit there on their keisters from May until August," he said. "Nobody's bothering to do anything."

ON THE SCENE: Officials from MK-Ferguson Co., the construction contractor succeeding Rust Engineering Oct. 1, arrived in Oak Ridge on Tuesday in preparation for contract talks with

union leaders. The Department of Energy brought MK-Ferguson to town to help Rust's inability to meet contract terms with workers represented by the Knoxville Building and Construction Trades Co.

The construction workers returned to the job last week until a tentative agreement for 30 days, pending the outcome of continued negotiations.

DOE spokesman Steve Wyatt said MK-Ferguson officials were to be in a presentation session with the labor council Tuesday. "It's just a 'hello' meeting," Wyatt said. Negotiations are "on down the road," he said.

SAILING, SAILING: Nuclear pioneer Alvin Weinberg said Energy Secretary James Watkins is doing something good for DOE but may have gone overboard.

"I think Admin. Watkins is right in trying to re-establish confidence in the Department of Energy," Weinberg said. "But I think there is the point, if you look at the scientific evidence, where the level in which people are trying to clean up goes far beyond what is scientifically justified."

"I think my point is that in cases like this, like in cases of technology in general, people are so nervous that government entities are apt to over-react."

"We are living in this age of anxiety, and everybody is scared."

Frank Munger covers the Department of Energy for The News-Sentinel.

The Knoxville News-Sentinel, Thursday, June 21, 1990 • A7

## DOE sets two public meetings on pollution in Watts Bar Lake

News-Sentinel Oak Ridge bureau

**OAK RIDGE** — The Department of Energy will hold two public meetings next week to discuss pollution in Watts Bar Lake and related issues.

The first session will be at 7 p.m. Monday at the Holiday Inn at the Harriman exit off Interstate 40.

The second public meeting will be at 7 p.m. Wednesday at the American Legion Hall in Spring City.

DOE set up the meetings because of public concerns over contamination reports in Watts Bar and other bodies of water near the Oak Ridge reservation.

A preliminary assessment identified dozens of pollutants as

potential hazards that require further study. However, the federal agency and its chief contractor, Martin Marietta Energy Systems, said there does not appear to be an imminent health threat to lake residents or those people who use the reservoir for fishing and recreational purposes.

Watts Bar resort and business owners have complained that news reports about the lake's pollution have jeopardized their economic livelihood. Environmental groups said the public has not been properly informed.

Scientists involved in the studies said it probably will be several years before a decision is made on whether a cleanup of Watts Bar and other sites is necessary.



## ***YOU are invited . . .***

**... to public meetings on the Clinch River and  
Watts Bar Reservoir Environmental Remediation Program**

The U.S. Department of Energy (DOE) Oak Ridge Operations will hold public meetings June 25 in Roane County and June 27 in Rhea County on studies of sediment contamination in the Clinch River and Watts Bar Reservoir downstream of the Oak Ridge site.

The meetings will include presentations by DOE and Martin Marietta Energy Systems, Inc., staff and a question-and-answer session. Potential ecological and human health risks will be discussed. DOE and Energy Systems staff will be present to meet informally with the public before each meeting.

*For additional information, please call  
Steven Wyatt, DOE  
Public Information Office,  
at 576-0885, in  
Oak Ridge.*

### **Public Meeting Schedule**

#### ***Roane County***

**Monday, June 25, 7 p.m.**

**Holiday Inn,  
U.S. 27 near I-40  
Harriman**

#### ***Rhea County***

**Wednesday, June 27, 7 p.m.**

**American Legion Hall,  
West Jackson Street  
Spring City**

### ***Meeting Agenda***

**6-7 p.m.—Meet with DOE representatives**

**7-8 p.m.—Presentation**

**8 p.m.—Break**

**8:15-9:30 p.m.—Question-and-answer session**



**U.S. Department of Energy  
Oak Ridge Operations**

## **editorials**

### *Reports to be explained*

Watts Bar Lake has gotten more publicity on a wider scale in the last few months than it has received since it was created by Tennessee Valley Authority during World War II.

That's because it is included in some of the first reports ever to be public on its condition. The reports, now required by law, deal with contamination which allegedly has resulted from the Department of Energy (nee Atomic Energy Commission) operations on the Oak Ridge reservation.

These reports have been referred to in the New York Times, on television and in newspapers and magazines. They readily admit to contaminants.

But they are not easy for many of us to fully understand and analyze. Because of the need for full understanding by the public, the studies from these reports will

be explained in layman's terms at a meeting at 7 p.m. Monday at the Holiday Inn at Harriman. The speakers will be Robert Sleeman, director of DOE's environmental restoration division, and Dr. Bruce Kimmel, program manager for Martin Marietta Energy System's Clinch River-Watts Bar environmental restoration investigation.

We urge all persons who have concerns about contamination of the waters and those who simply desire to have factual information to make it a point to attend the meeting and to ask appropriate questions.

If for any reason you can't make the Harriman meeting, there will be a similar session at 7 p.m. on Wednesday, July 27, at the American Legion Hall at Spring City.

# Kimmel wants realistic view for Watts Bar contamination

by John Avery Emison  
Oak Ridge staff

A scientist who will make a presentation at tonight's Department of Energy Watts Bar information meeting wants people to have a realistic view of the risk lake contaminants pose.

DOE will conduct a public information meeting about the contamination of lake sediments at 7 p.m. at the Holiday Inn in Harriman. A second meeting is scheduled for Wednesday at 7 p.m. in the American Legion Hall in Spring City.

Dr. Bruce L. Kimmel, director of the DOE off-site contamination program, and co-author of three recent reports on contamination of area waters, said too much has been made of the risk to human health.

"Some of the parties (critical of river sediment pollution) have overdone it," Kimmel said. "They've sensationalized it."

Kimmel said reports that people have been canceling resort reservations due to the resurfacing of the issue of mercury and plutonium contamination in Watts Bar Lake is regrettable. "There's no reason for that occurring," he said.

"The main thing I would like to accomplish (tonight) is basically present an overview of what we have done on the contamination of Watts Bar," Kimmel said.

"I want to make sure people understand the program we (are doing) is one that makes sense. It's based on common sense," Kimmel said.

Kimmel expressed surprise at the amount of publicity given to three March 1990 reports he and other scientists at the Oak Ridge National Laboratory authored. He said they have gotten more attention than they deserve.

Steve Smith, a co-founder of the foundation, said the group will attend and participate in the meetings.

"We have a few questions that we want to ask about one of the reports," Smith said.

Tuesday, June 26, 1990

Page A1

# Watts Bar hearing attracts 200-plus

## Pollution is topic; concerns are aired

By FRANK MUNGER  
News-Sentinel Oak Ridge bureau

HARRIMAN — More than 200 people jammed a Holiday Inn ballroom Monday night for the first of what is expected to be a series of public meetings on pollution in Watts Bar Lake.

Some folks came to the meeting to be reassured about the level of pollution — hoping to hear that it's not a threat to their health or the scenic environment. Others in the audience came for the opportunity to voice their concerns and to criticize the federal government for decades of environmental abuse.

Both sides got what they wanted.

Dr. Bruce Kimmel, an environmental scientist at Oak Ridge National Laboratory, outlined the status of studies under way to monitor pollutants in Watts Bar and to assess the risk to humans.

Based on preliminary work, Kimmel said, there does not ap-

pear to be to any "short-term imminent risks." Much work remains to be done, however, before the long-range risks can be thoroughly understood, he said.

Many of the pollutants of concern, he said, fall in a category that could be considered somewhere between "acceptable" and "unacceptable" risks according to the preliminary studies.

"It's a gray area," Kimmel said.

For some of the pollutants, there's only a 1-in-100,000 chance of a person being harmed, he said.

"We're not saying they're trivial risks. We're just trying to put them into perspective," he said.

Steve Smith, with the Oak Ridge Environmental Peace Alliance, questioned the accuracy of some of the reports issued earlier this year on the Watts Bar contamination. Smith said he thinks the reports seriously underestimated the amount of radioactive cesium discharged from ORNL and later deposited in Watts Bar sediments.

Kimmel conceded there were many "uncertainties" in the re-

Please see WATTS, page A4

## Watts

Continued from page A1

ports, but he said the level of contamination in Watts Bar is documented with core samples from the lake bottom.

"What you see is what you get," he said.

Ace Sparks, who said he was a

minister in the area, said the Department of Energy needs to move swiftly to stop people from drinking water from the lake and nearby rivers.

"These three towns (Harri-man, Kingston and Rockwood) are drinking poisonous water," Sparks said. He said many of the people he visited in local hospitals are dying from cancer.

"There's an epidemic," Sparks

said. "It's got to be the drinking water."

DOE officials said state epidemiologists are planning a health study of residents in the area surrounding the federal reservation in Oak Ridge.

Another public meeting is scheduled for 7 p.m. Wednesday at the American Legion Hall in Spring City.

## DOE officials explain extent of contamination

by John Avery Emison  
Oak Ridger staff

**HARRIMAN** — A standing-room-only crowd of 250 gathered in the Holiday Inn here Monday night to hear the Department of Energy's explanation of the extent of contamination in Watts Bar Reservoir.

The group was also advised of several late-breaking developments relating to the environmental analysis and cleanup process.

The numerous lake contaminants, which include radionuclides, heavy metals and toxic chemicals, pose no short-term risks to human health, Dr. Bruce L. Kimmel, an ecologist at the Oak Ridge National Laboratory, said.

"We don't see anything out there that constitutes a short-term imminent risk," Kimmel told the group.

In addition to a briefing on DOE's study process, three important revelations were made at the meeting.

First, a full-blown environmental impact statement on DOE's cleanup plan — with accompanying public participa-

tion — is "very likely," according to Robert Sleeman, manager of the agency's environmental restoration program on the Oak Ridge reservation.

Second, Sleeman said DOE has agreed in principle to fund a public health study to determine what, if any, human health consequences have resulted from the contamination. He said the Tennessee Department of Health and Environment will conduct the study.

Third, the Nashville district of the U.S. Army Corps of Engineers has put on hold all dredging and boat dock permits for Watts Bar, according to Ron Gatlin, a Corps permit regulator.

Putting a hold on dredging permits is important because dredging merely stirs up the contaminated sediments, Kimmel said. "Dredging is out. We know we should not dredge," he said.

Kimmel presented the numbers on lake sediment contamination to back up the no-dredging policy.

See WATTS BAR, Page 4

# WATTS BAR: Second public hearing set for Wednesday

Continued from Page 1

Seventy-three tons of mercury, a heavy metal neurotoxin, and 290 curies of cesium-137, a radioactive isotope — are trapped in the sediments of Watts Bar Lake, said Kimmel, who authored one of three ORNL environmental reports on the Watts Bar problem published in March. That's the good news.

The amount of mercury in Watts Bar is about half of what has been released from weapons production at the Y-12 Plant over the years. Cesium in Watts Bar amounts to about 85 percent of the releases, primarily from ORNL.

The bad news is that another 73 tons of mercury remain on the flood plain of East Fork Poplar Creek, which winds its way through Oak Ridge after leaving Y-12.

But the contamination of mercury and cesium in Watts Bar is concentrated at least 2 feet deep in lake sediments in the deepest parts of the lake, according to Kimmel. Hence the need to leave the sediment undisturbed.

However, this did little to dissuade members of the Oak Ridge Environmental Peace Alliance who peppered Kimmel, DOE and Martin Marietta Energy Systems officials with criticism about the research methods used in the reports as well as conclusions about the risk to human health.

Steve Smith, a veterinary medicine student and co-founder of OREPA and other environmental groups, claimed that Kimmel's study underestimates by 40 percent the amount of radionuclides released into area waters.

Kimmel responded that the amount released by the government plants is not as important as the amount that is retained in lake sediments. "What you measure in lake sediments is actually what's there," he said.

Other questions centered on the level of risk to people who drink well water near the lake. Kimmel said risk calculations show that it is very low.

Another individual wanted to

know the source of PCBs — suspected of being a powerful carcinogen — in lake water. Kimmel said polychlorinated biphenyls are a common surface water contaminant and it is difficult to say how they got into Watts Bar.

One man offered the view that Tennessee Valley Authority is the source of PCBs. "TVA, a lot of (PCBs) is coming from them," the unidentified man said. Watts Bar Lake is part of the TVA system.

Ralph Hutchinson, a Lake City resident and OREPA activist, said he believes Kimmel and other researchers are concerned about the environment, but that "the institution" cannot be trusted. Hutchinson identified the institution as Martin Marietta Energy Systems and DOE.

He said it may not yet be the time to yell "fire" in the theater. But he added, "You should know that the management has discovered smoke in the first few rows."

Two individuals expressed concern that DOE's hazardous waste incinerator at the site of the Oak Ridge Gaseous Diffusion Plant would add to water pollution problems.

The incinerator was constructed under the Toxic Substances Control Act and will burn up to 10 million pounds of mixed waste, toxic chemicals tainted with low levels of radioactivity.

Jim Young, a Kingston area resident, chided Kimmel and others for not using the word "death" in their presentation on health risk. Young said it is death that is the risk with which everyone is concerned.

A member of OREPA told the group that pollution cannot be stopped as long as nuclear weapons are produced at Y-12.

Kimmel said the next step in the environmental remediation process is to determine what type of cleanup actions can potentially be used. This will be followed with the selection of a single remediation process.

A second public information meeting will be conducted at 7 p.m. Wednesday in the American Legion Hall in Spring City.

Tuesday, June 26, 1990

The Knoxville Journal

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# DOE reports Watts Bar poses no risks

BY MARK HICKS  
of The Journal staff

**HARRIMAN** — Some residents at Monday night's Department of Energy public meeting concerning contamination in the Watts Bar Reservoir seemed relieved and satisfied with what they heard, but questions still remain.

"I think it was pretty encouraging," said Miriam Welch, a resident who has bought property along Watts Bar Lake.

What she heard was "pretty positive" as DOE officials said their studies of potentially hazardous pollutants haven't shown any imminent health risk to humans.

The officials explained their preliminary findings on cesium and mercury contamination to a crowd of some 200 people.

Bruce Kimmel, program director for off-site investigations with Marietta Energy Systems Inc., said studies have concentrated on deposits of cesium-137, a radioactive substance deposited in the lake during the late 1950s.

Kimmel said cesium is easy to track. It acts as an indicator because other contaminants "stick" to it and researchers can get a good idea where other contaminants are and in what concentrations, he said.

"I feel (the contamination threat) was blown out of proportion," Brad Wells said, citing some recent stories quoting environmentalists.

The hearing was prompted by news reports of potentially dangerous contaminants in the lake, which is an impoundment of both the Clinch River and the Tennessee River. The Clinch drains the Oak Ridge DOE property.

Wells also owns property along the lake and seemed satisfied with the information he heard.

"But there's a lot of people here who might keep the pot stirred up," Wells added.

Not everyone was reassured.

"We've heard it all before," said Leaf Myczack of the Clean Water

Project after the meeting.

He explained that his group has been working for several years to get answers to questions concerning the lake's contamination.

"They're trying to put out the fire," said Denny Haldeman, Project member from Chattanooga. "This is the first actual (public) meeting they've had ... and this has been going on for 45 years."

"I hope (DOE is) doing all they can," said Charles Campbell of Oliver Springs. "It seems like they're moving along pretty good. But they can't do it overnight."

Campbell, who will be 67 next month, said he had fished Watts Bar Lake since the mid-'50s but stopped a couple of years ago.

However, contamination wasn't the reason for selling his boat. "You just can't catch the fish like you used to," he said.

But sometimes Campbell wonders if all those potentially contaminated catfish contributed to his health problems.

The Y-12 employee of 31 years said he recently had a prostate cancer operation and has had stomach and nerve problems.

According to DOE, about 280 curies of cesium-137 have accumulated in Watts Bar's sediment. That represents about 85 percent of all the cesium-137 released from the Oak Ridge National Laboratory since 1949.

An estimated 75 metric tons of mercury have also accumulated in the lake's sediments, or about half the estimated discharge from the Y-12 plant since it opened in 1943, Kimmel said.

Steven Smith of the Oak Ridge Environmental Peace Alliance called some of the cesium-137 discharge figures "significant underestimations" because numbers from 1944-48 were not included.

Kimmel said records were not kept on cesium-137 in those days and concluded that all the figures were estimations with a possibility for error.

# Over 200 crowd meeting about Watts Bar

By HAYDEN EVANS

Oak Ridge Writer

**HARRIMAN** — A public meeting was held Monday night in Roane County by the Department of Energy on studies of sediment contamination in the Clinch River and Watts Bar Reservoir downstream of the government installations in Oak Ridge.

Approximately 200 people from Roane County and the surrounding areas attended the public information meeting held in the ballroom of the Holiday Inn between Harriman and Rockwood. The formal presentations were given by Robert Steeman, director of DOE's Environmental Restoration Division, and Dr. Bruce Kinnel, program manager for Martin Marietta Energy Systems Inc.'s Clinch River/Watts Bar environmental restoration investigations.

Paul Page, assistant editor of the Roane County News, served as moderator and introduced the speakers. Several DOE/MNES staff members assisted in answering questions in their specific areas of expertise.

The presentation focused on recently completed preliminary studies on cesium and mercury contamination resulting from past DOE operations and waste disposal activities and on potential ecological and human health risks. The speakers showed a series of slides containing facts, figures and graphs designed to explore the extent of contamination in the Clinch River and the Watts Bar Reservoir including the risks.

The contaminants include radioactive elements, heavy metals and/or organic compounds. Based upon the preliminary studies, it was the consensus of opinion of Steeman, Kinnel and their supporting staff that there is no imminent risk to the public as a result of the contamination.

Kinnel, in response to a direct question regarding whether or not he would go swimming, drink the water and eat the fish from Watts Bar, replied, "Yes, I have been doing them regularly and have said so many times."

Kinnel summed up his presentation by declaring, "We know we don't want to dredge, there are no short-term imminent risks based upon information known at this time, the contaminants reported need more evaluation, and the investigation is under way and ahead of schedule."

Beginning in the early 1980s, a variety of contaminants from DOE's facilities in Oak Ridge were leaked into the Clinch River and Watts Bar Reservoir. DOE is now investigating the contamination under the framework of existing federal environmental regulations. Potential alternatives for cleanup will be based, in part, on this investigation. A cleanup strategy will be developed with public input and in close coordination with state and federal regulatory agencies.

The offsite environmental investigation is in the first phase. Three preliminary scoping studies were recently completed. The reports assess the extent of con-

tamination of sediment downstream from the Oak Ridge sites and the ecological and human-health risks associated with the contamination. Information in the reports is derived from previously published studies and newly generated data.

The amount of contamination in Watts Bar Reservoir sediments was determined by assessing the distribution of Cesium-137 from over 100 surface-sediment samples and 60 sediment cores. Cesium-137 is a radioactive isotope, a byproduct of research and development activities at ORNL. The areas included in the scoping studies were Melton Hill Reservoir, Clinch River below Melton Hill Dam, White Oak Creek embayment, Poplar Creek embayment and Watts Bar Reservoir.

For the entire Watts Bar Reservoir, about 200 curies of Cesium-137 have accumulated in the sediments. This represents approximately 85 percent of the total Cesium-137 released from ORNL into the river system since 1966.

An estimated 75 metric tons of mercury have accumulated in the reservoir sediments, which accounts for about 50 percent of the historical discharges from the Y-12 Plant. Most of the Cesium-137 and mercury contamination in Watts Bar is found in deep-water sediments in the Clinch and Tennessee River channels.

The preliminary scoping study indicates that the cesium, mercury and other contaminants are contained in the sediment at an average depth of 24 inches from the surface of the sediment. Contamination

however, does extend in varying concentrations throughout the Reservoir.

Detailed risk assessments will be conducted to more accurately identify potential environmental and human-health risks. These studies

will provide a comprehensive investigation of offsite surface water contamination. Additional samples of water, sediment and fish are being obtained.

Please see Watts Bar, Page 2-A



**DOUGIE EMMERICH**, at left, was one of the citizens who questioned DOE and Martin Marietta reports about Watts Bar Lake contamination presented Monday night during a public meeting at the Holiday Inn, Harriman. Over 200 people crowded the local facility, including attorney Gerald Largent and Jean Meredith above, both advocates for a cleaner environment. See additional photos, Page 1-A (Staff photos by Pat Hope)



(ROANE COUNTY NEWS 6/27/90)

# Watts Bar

and analyzed. Information from all studies will be used to plan extensive characterization and risk assessments as part of a future environmental cleanup program.

A sizeable delegation from the Oak Ridge Environmental Peace Alliance was present at the meeting as well as representatives of other environmental groups and individual environmental activists. Almost all of the questions asked and comments made were by the environmental activists. In fact, they dominated the question-and-answer period even to the extent of showing a series of slides and preceding each question with a lengthy statement of their personal views critical of the federal government for environmental abuse since the early 1940s.

Emotions ran high, but it was, after all, a public meeting to afford any citizen the opportunity to ask questions regarding the studies of DOE/MMES on the status of the contamination in the water.

The Oak Ridge Environmental Peace Alliance representatives challenged DOE/MMES studies practically across the board. The Alliance's finding showed that the DOE report grossly underestimated the amount of radioactive Cesium-137 released into the Clinch River. Instead of the 665 curies of cesium reported by the government, the Alliance had figures showing that 930 curies of Cesium-137 had been released over the past several decades. According to the Alliance, the finding not only pointed out a key

discrepancy in the DOE assessment of the radioactive impact on the Watts Bar Reservoir system, but it also called into question the thoroughness of the scientific evaluation undertaken and the entire scientific process.

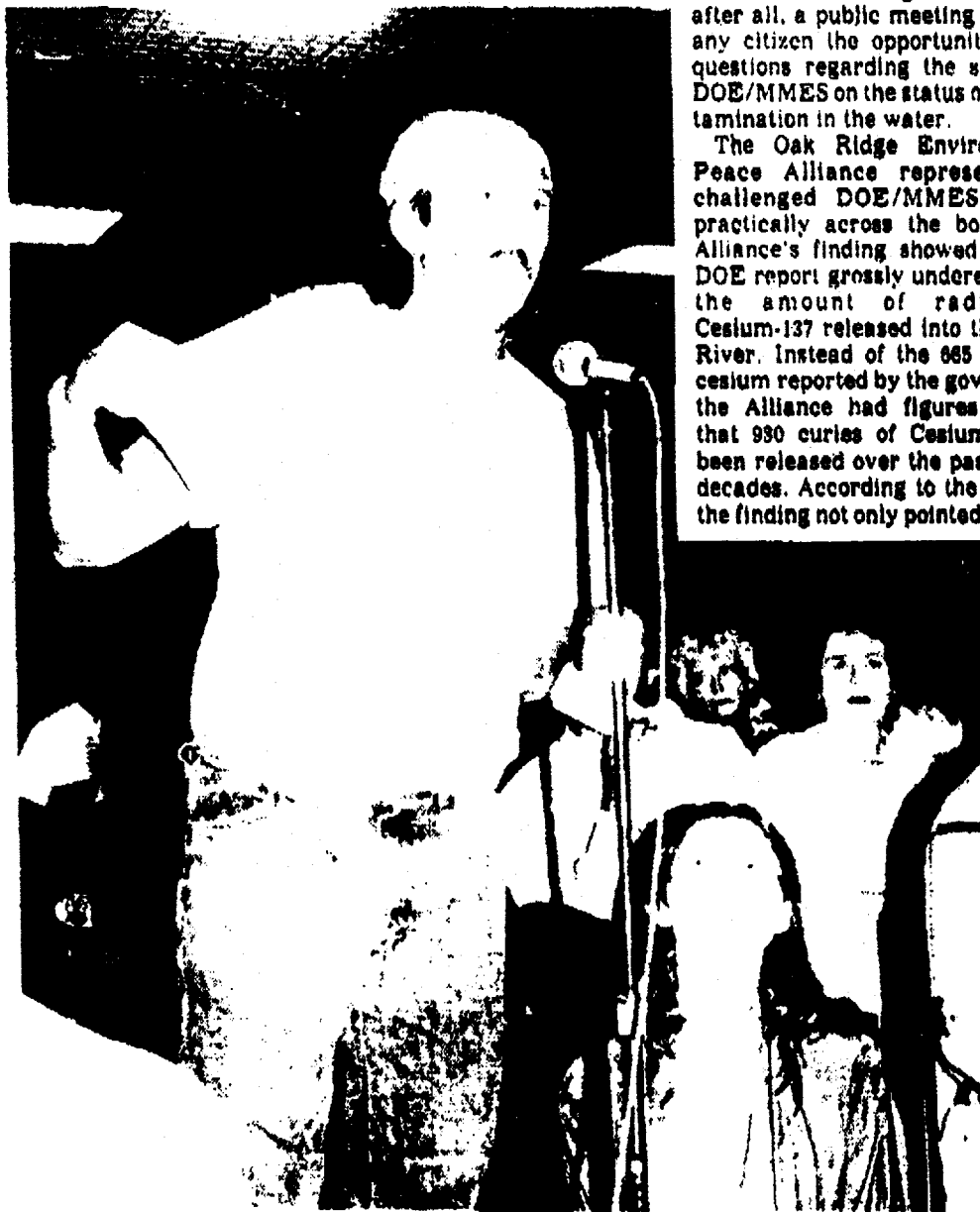
The Environmental Peace Alliance faulted DOE for relying on institutional data developed when public health was not a priority concern for the government and its contractors. Evidence was cited of an "institutional bias" ingrained over years of operation in Oak Ridge which would seek to ask, "How bad isn't it?" rather than the more objective, "What are the facts?"

It is the Alliance's position that there has been a failure to involve the public, to provide for independent analysis or adequate peer review in the process of developing the various DOE reports.

The Alliance states that the leaching of radioactive waste from six radioactive landfills and numerous liquid radioactive waste pits and trenches continues in 1990; further, that these sources have been the primary sources of radioactive releases into the Clinch River.

Finally, the Alliance believes that it is not possible to confidently accept the reports of MMES unless they are subject to public comment, peer review and independent analysis.

The Alliance's findings were based upon information contained in study reports provided earlier by DOE/MMES.



ABOUT 200 CITIZENS attended a meeting at the Holiday Inn in Harriman Monday night to hear about Clinch River and Watts Bar Lake clean up efforts by the Department of Energy and Martin Marietta. Oak Ridge Environmental Peace Alliance members like this man questioned some of the figures which DOE and Martin Marietta officials presented.



NEWS ASSISTANT EDITOR Paul Page, above, moderated the Monday meeting, which brought out a number of protestors, like Leaf Myschak, right, holding up a sign for the camera.



*Staff photos  
by Pat Hope*



DR. BRUCE KIMMEL, left and Robert Sleeman, right, answer questions about contaminants in the Watts Bar Reservoir at Monday's

public meeting held in Harrison. A similar meeting will be held in Rhea County tonight at 7 p.m.

## editorials

# Water woes leave thirst for trust

As a young girl learning to swim in Watts Bar Lake near Caney Ford, I don't remember anyone ever telling me not to go into the water because of mercury or Cesium-137. I do remember a few snake stories and the danger of stepping off into deep water or a story about the swimmer who drowned from being caught in a "whirlpool."

As an adult, I have taken a lot of kidding about living near Oak Ridge. I've heard all the comments about "glowing in the dark," and "being the target for Russians." I've also seen hundreds of people work and retire at Oak Ridge, and I've known hundreds more who would give anything to be employed there, such threats notwithstanding. Some of these people were perfectly healthy, and some were obviously not, pretty much the way it is most places.

At Monday night's public meeting about the contamination in Watts Bar Lake, the officials from Martin Marietta Energy Systems Inc. and the Department of Energy took a lot of heat. The nearly four-hour event turned out to be little more than a forum for area environmental groups. One woman who asked a question was almost apologetic that she was not with some group.

Personally, I felt comfortable with Dr. Bruce Kimmel's comments. He has said over and over that he fishes and swims and plays on Watts Bar like the rest of us. The very nature of his job puts him in touch with the lake on a daily basis. Like me, he has lived and worked here for a number of years and associates any "risk" as part of living, not part of dying.

Personally, I'm a little dismayed by people who want a "100 percent" guarantee. Name me one job or environment that doesn't carry risks. At the newspaper, there are chemicals and machines that could injure, cripple or kill me. So would there be if I drove a coal truck or worked at a plant in the industrial park or repaired televisions or serviced vending machines or stayed home.

As editor of the Roane County News, I must put personal feelings aside and look at the total picture. Evidently, the environmental groups have legitimate concerns and questions. Obviously, all speakers put a lot of time and effort into preparing the information which they presented.

Like it or not, Roane County is in the

middle of all this. As Roane County's hometown newspaper, it's our job to report the facts. You'll find them in the front page stories we print about incinerators, landfills and yes, pollution in the lake. Despite the claim of a Knoxville television station that all this is somehow new and unreported, Watts Bar has been around a long while and the Roane County News has been covering lake-related stories, both good and bad, since 1959. We've shown both sides of this lake contamination issue several times . . . from traveling on rain-logged boats to take pictures of sunken signs, to following marchers through their demonstrations, to seeking out answers to vaguely worded reports.

Did Monday's meeting help the public to understand the Watts Bar situation any better? Maybe. Maybe not. But several facts can be sifted from the broken hourglass. Officials of Martin Marietta and DOE say there is "no immediate danger to public health, based on current data." The people who have researched that data; the people who are continuously researching that data; the people who wrote that data; and the people who have presented it to us over and over again, live here. They also swim in the lake, fish and boat here and drink the water.

At some point we have to trust someone. Should we hang the messenger because he can't give us a 100 percent guarantee that the water we're drinking is pure? Should we take DOE and Martin Marietta officials out to the woods and shoot them for something their predecessors did?

I refuse to believe that every individual and official who has ever worked at Martin Marietta, Union Carbide or DOE is "out to get us," or is deliberately "dirtying our water."

They have admitted their findings are preliminary. They have said they are not only cleaning up past mistakes but trying to be sure that the ground and water are not further contaminated.

Granted, there are still things we don't know, and cleanup efforts are needed. We can continue to learn and improve on what we've already done, or we can all become like "chicken little" and proclaim to the world that the sky is falling, when in fact, a simple acorn may have fallen from the tree.

PAT HOPE

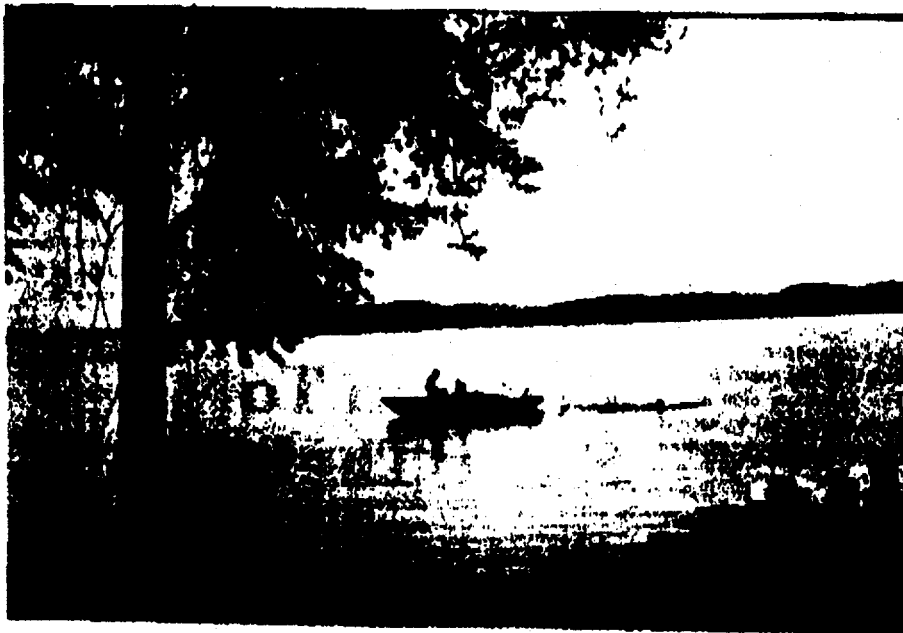
# The Rhea County Reporter

Volume II, Number 85 / Wednesday, June 27, 1990



Spring City, Tenn.

## Watts Bar Lake Poses No Health Threat - DOE Says No Risk



Beautiful Watts Bar Lake has officially been deemed "No Risk" for swimming, fishing, water sports or human health by Oak Ridge officials after intensive government studies.

by Rita Moore

Amidst much skepticism from the audience, US Department of Energy and Martin Marietta officials still insist there is "No immediate risk" to you, the public, from contaminants in Watts Bar Reservoir.

At a Public Meeting Monday, June 25, held at the Holiday Inn in Harriman, Dr. Bruce Kimmel, Program Manager for Energy Systems' Clinch River/Watts Bar environmental restoration investigations, showed slides depicting the results of government studies to approximately 250 people. Kimmel quoted the findings for Watts Bar to be 5 chances in 10,000 to find PCBs in fish; 2 in 100,000 of finding arsenic in fish; and 1 in 100,000 of finding Cesium 137 or Cobalt 60 in surface sediment. Kimmel said, "remember, we're talking of 89,000 square miles of surface

area." Kimmel said cesium reacts with the environment like other contaminants do and is very easy to detect. Finding cesium gives researchers a good idea where other concentration is, he said. Kimmel said the preliminary scoping study indicates that the cesium, mercury, and other contaminants are contained in the sediment, at an average depth of 30 inches from the surface, buried deep in the muck, with highest concentrations in the deepest part of the old river beds. He said Watts Bar showed 37 parts per million found deep down in the sediment. Kimmel said, "we should not dredge this cannot be removed by the dredging process."

When questioned by Steve Smith, who heads the Oak Ridge Environmental Peace Alliance, over discrepancies in amounts of over 300 curies

shown in reports issued in the '80's over the current statistics, Kimmel said, "We took sediment tests of the actual materials and what you see is what you get, it is what is actually there."

Although all the reports showed there is no health risk, which was also accepted by the national health and safety group, spectators remained concerned as to whether they, "were telling us the whole story," and "if it is REALLY safe."

The Oak Ridge facility was built during World War II to help make the first atomic bomb, and contaminants were dumped in the 1940's and 1950's in Bear Creek, Poplar Creek, and holding tanks, which then entered the Clinch River and on into Watts Bar Reservoir. Kimmel said it will take 30 years to completely cleanup the waters, at a cost of billions

of dollars.

In December of '89, the area was put on the National Priority List for cleanup. On June 22, 1990, the DOE announced that a major five year research program has been initiated at the Oak Ridge Y-12 plant to reduce by 80% the amount of uranium waste generated in government metal manufacturing installations, as identified in Secretary of Energy James D. Watkins' Environmental Restoration and Waste Management program, the Department's blueprint for cleaning up DOE facilities.

Operated for DOE by Martin Marietta Energy Systems, Inc., Y-12 will be the initial site for the program, acting as a focal point in demonstrating how uranium waste can be reduced through new methods of metal purification, shaping, and recycling.

A second Public Meeting is scheduled for Wednesday, June 27, at 7 pm at the American Legion Hall on Jackson Avenue, just off Front Street, in Spring City.

Simultaneous meetings were held at Watts Bar Resort on Highway 68-East, Tuesday Evening and Wednesday morning, June 26 & 27, with State Representative Shirley Duer and the House Conservation Committee on the issue of pollution and the impact on Tourism for the lake resort owners. Results of these meetings were not available by press time, but will be reported in next weeks edition. All meetings are open to the public.

For more information on DOE environmental remediation programs, please call the DOE Public Information Office at (615) 676-0845, Steven Wyatt, or Jim Alexander, or write to the same office at P.O., Box 2001, Oak Ridge, TN 37831-8508.

# Public Meeting On Watts Bar Here Wed., Jun. 27

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The recently completed studies are part of a comprehensive environmental investigation of off-site surface water contamination. Information from these studies will be used to plan extensive characterization and risk assessments as part of a future environmental cleanup program.

The public will have the opportunity to ask questions on these studies from the representatives following the presentation. The public will also be given the opportunity to meet with the representatives before and after the meeting.

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PAGE 2 THE OAK RIDGER, OAK RIDGE, TN., THURSDAY, JUNE 28, 1990

## OUR VIEWS

### Making environment a high priority at DOE

The Department of Energy conducted Wednesday the second of two area public information meetings on pollution in Watts Bar Reservoir.

The source of contaminants, including such substances as arsenic, polychlorinated biphenyls, mercury, cesium-137, strontium-90 and plutonium, is DOE's facilities on the Oak Ridge reservation.

It is indeed of concern that 146 tons of mercury have been released from the reservation — primarily from the Y-12 Plant — and that half is in the flood plain of East Fork Poplar Creek and the other half is buried in the sediments of Watts Bar Lake.

It is also important to keep the problem in proper perspective.

Scientists at the Oak Ridge National Laboratory who have studied the contamination problem in detail — and are planning for even more detailed studies in the near future — assure us that there is no imminent risk to human health.

History tends to support this assertion.

Most of the mercury and radionuclides buried in the mud beneath our truly beautiful waters were released into the environment in the late 1950s and early 1960s.

That's about 30 years ago. It would seem that if we were going to begin dropping like flies — and that's

what some of the shrillest critics of DOE imply — we would have been doing so for quite some time now.

But there is a more important issue in the current controversy than blame and doom.

We are quite delighted to hear DOE acknowledge responsibility for the mess it made. We are equally delighted to see the agency taking action to clean up the mess and make certain that it doesn't happen again.

The current study process has as its goal a determination as to whether the Watts Bar pollutants should be somehow removed, or whether it is simply better to leave them alone.

This process is being completed in a remarkable public environment with little opportunity for anyone to fudge on the facts.

Even more encouraging is the fact that the plants on the reservation have greatly reduced the amount of pollutants that move off-site.

The closure of the S-3 ponds — a notorious source of radioactive pollutants — has been accomplished and should reduce the amount of pollution leaving the reservation.

We salute DOE for owning up to its environmental responsibilities. We hope the environment continues to be a high priority for the Oak Ridge Operations office.



The Oak Ridger

June 28, 1990

P. 1

## DOE pleased with public hearings on Watts Bar

by John Avery Emlson  
Oak Ridger staff

Department of Energy officials and scientists who have studied contamination of Watts Bar Reservoir are pleased at the results of two public information meetings this week.

"We met our objective, which was to answer questions about pollution in the sediments of the Clinch River and Watts Bar," said DOE spokesman Steven Wyatt.

Wyatt — who attended the meetings in Harriman on Monday and Spring City Wednesday evening — said he was pleased that the combined attendance approached 400.

"I was pleased that we had such a good turnout," Wyatt said.

"It was our intent to open this issue to the public," Wyatt said. He emphasized that the meetings are "just sort of the beginning in a way, because we will hold additional meetings on the cleanup process."

Dr. Bruce L. Kimmel, a co-author of one of three environmental reports on Watts Bar pollution, presented findings at both meetings.

"By conducting the meetings, we have been able to get a little more complete information (about the extent of pollution and the risks to human health) out to people," Kimmel said, an ecologist at the Oak Ridge National Laboratory.

ORNL is one of three DOE facilities in Oak Ridge from which the contaminants came.

Speaking of Wednesday night's meeting in Spring City, Kimmel said many of the people who attended were boat dock and resort

**See HEARINGS, Page 4**

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P. 4

## HEARINGS: Officials will meet with NAACP tonight

Continued from Page 1

owners who "are being hurt by the publicity that has taken place."

Kimmel said an important point in the reports that he restated at both meetings is that the assumptions regarding human health are very conservative. "The assumptions we made (in the reports) were designed to err on the side of human health," he said.

The three reports, published in

March by ORNL, detailed pollution levels of toxic chemicals, heavy metals and radionuclides in the sediments of the Clinch River downstream from the Oak Ridge reservation and Watts Bar.

Kimmel said further testing of sediments will help researchers determine whether the contaminants should be removed.

About the only way to remove contaminated river and lake sedi-

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ment is to dredge it up, according to Kimmel. There are various dredging techniques and some are less dirty than others, he said.

One alternative may be to leave the contamination where it is because the largest concentration appears to be under 2 feet of mud in the deepest part of the lake, Kimmel said.

A similar presentation on DOE-sourced pollution will be made tonight at a public meeting of the Oak Ridge chapter of the National Association for the Advancement of Colored People.

# Risk communication

## Watts Bar information exchange goes two ways

Dr. Bruce Kimmel of Martin Marietta Energy Systems Inc. deserves a medal for his even-handedness in presenting the current status of the Department of Energy's studies on contamination in Clinch River and Watts Bar Lake to an audience, many of whom were hostile, Monday night at the Holiday Inn, Harriman.

Like Kimmel, Bob Sleeman of DOE and the rest of the environmental restoration party kept their "cool," in the face of environmental activists who derided their scientific evaluation as well as the whole scientific process.

However credibility remained on the side of the men from MMES/DOE since they seemed to be the only active, qualified scientists in the room. They explained their scientific data by visual aids and answered the many emotion-laden questions calmly and as meaningful as possible.

The point that the offsite investigation is in its first phase with much more work ahead needed to accurately identify environmental and human-health risks seemed to be lost on those who already had their minds made up.

The environmental groups hogged the limelight from the moment the floor was opened for questions. Few Roane County citizens, especially property owners, went to the microphone to ask questions. The activists, mainly out-of-towners, quickly dominated the proceeding and turned it into a forum to vent their displeasure with the establishment.

The establishment, of course, is government at all levels and private industry, particularly Martin Marietta and its predecessors at Oak Ridge.

On the other hand, frustration has been building among the public for several years. People don't know whom to believe. Today, after the Three-Mile Island nuclear accident, the chemical leak in Bhopal, India, the Valdez oil spill and local problems with in-



Over  
the  
Ridge  
by  
Hayden Evans

cinerators and landfills, many believe the communication process has broken down.

In this regard, we must give DOE/MMES credit for their attempt to improve risk communication with the public by making the recent presentations in Roane and Rhea counties, June 25 and 27.

Scientists become distressed because the media and the public misinterpret their complex research. Risk communication is a

two-way street. It's an interactive process of exchange of information and opinion among individuals, groups and institutions.

In the past, government and industry officials have generally thought of risk communication as a one-way message delivered from experts to non-experts.

Many people have unrealistic expectations about what can be accomplished in environmental restoration. Although good communication can't always reduce conflict and smooth risk management, failure to communicate with the public will always make matters worse. DOE and Martin should continue to keep an open dialogue with the people who may be affected by the potential risks.

One must keep in perspective that nationwide DOE has embarked upon a 30-year cleanup effort that will cost billions to correct past environmental and safety neglect.

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# Discharges within legal limits

By PAUL PAGE  
Assistant Editor

KINGSTON — Routine air and water discharges from the Oak Ridge reservation are "well within guidelines established by various regulatory authorities," says the Roane County Environmental Review Board.

It made the comments in a report requested by County Executive Ken Yager.

But the report also expressed concern about "the potential for catastrophic releases" and suggested "it is in the best interest of Roane County's residents to encourage the Department of Energy to provide sufficient funding and staff resources to complete the study (of contamination in Clinch River and Watts Bar Lake) as soon as possible."

The report dealt with the Oak Ridge Reservation Environmental Report for 1988 and with a briefing

conducted by Jim Rogers and Dr. Bruce Kimmell of Martin Marietta Energy Systems Inc. Dr. Kimmell also was the chief speaker at a public meeting conducted by DOE at Harriman on June 25 and another at Spring City on June 27.

The report was signed by Arvin S. Quist, chairman of the committee, and reminded that "while we believe this is a fair review, you should be aware that three members (including the chairman) of the board are Martin Marietta Energy Systems employees."

The text of the report is as follows:

"The 1988 report and the Energy Systems presentation both suggest that routine air and water discharges of radioactive materials and toxic chemicals from the Oak Ridge Reservation are well within guidelines established by various regulatory authorities.

"The Board finds no reason to question this suggestion. However, neither the report nor the briefing addressed the issue of the potential for catastrophic releases. Such releases have occurred in the recent past, causing the temporary shut-down of affected water treatment plants. The Board, therefore, suggests that one issue of concern to

Please see Limits, Page 2-A

## Limits

Roane County is adequate public notification and monitoring of such releases.

The major environmental concern stemming from Oak Ridge Reservation operations is the historical discharges of heavy metals, toxic organic chemicals, and radioactive elements that have been incorporated into the sediments beneath Watts Bar Reservoir and remain as a buried legacy.

Energy Systems personnel are in the first phase of a multi-year program to characterize the extent of such buried contamination and its potential effects on the general public. Virtually all of the buried contamination is upstream of Watts Bar Dam and is thus of concern to Roane County. The study as presented appears to be well

organized and scientifically sound. The Board suggests that it is in the best interest of Roane County's residents to encourage the Department of Energy to provide sufficient funding and staff resources to complete the study as soon as possible. The Department of Energy should also be encouraged to release information from the study as it becomes

available to take a proactive stand in assuring that the public is adequately appraised of study results — good or bad.

"Certainly the Board will review reports as they are issued and may request further public briefings as appropriate."

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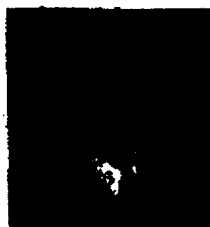
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## Environmentalism is guest at Kiwanis Club meeting

The Kiwanis Club of Oak Ridge will have Bruce Kimmel as its guest speaker on Tuesday at 6 p.m. at the Holiday Inn.

Kimmel, who is program manager for off-site investigations for the Martin Marietta Energy Systems environmental restoration program, will present an overview of "The Clinch River-Watts Bar Reservoir Remedial Investigation."

He has been a staff scientist with the Environmental Sciences Division at Oak Ridge National Laboratory for 10 years and he and his family reside in Oak Ridge. Kimmel received his doctorate in ecology from the University of California at Davis, and was assistant director of the Biological Station for the University of Oklahoma.



Bruce Kimmel

# 'Thumbs up' given for lake

Watts Bar Lake received a 'thumbs up' from the Department of Energy and Martin Marietta Energy Systems Inc. officials at a recent public meeting. The news was really no surprise. The real surprise at the meeting was the use or "misuse" of the First Amendment rights to free speech by an organized vocal minority. By dominating the question-and-answer part of the program, they left little if any time for others to pursue questions. In fact, many, including my wife and I, left the room when it was apparent that banner waving, shouting questions and answers, badgering speakers and the exhibiting of an attitude of wanting attention as the motivation for being at the meeting, proved to be much too much to accept.

The fact is that even if this well-organized group had legitimate points of concern, their negative approach overrode the good they might have accomplished.

It is sad that in the name of free speech, many of us were held speechless!

The whole point is that we have a 'thumbs up' for Watts Bar Lake!



## Chamber Channels

by Jim Bilyak,  
President,  
Roane County  
Chamber of  
Commerce



# What about Watts Bar?

## More dredging on lake unlikely, authorities say

EDITOR'S NOTE: Because Watts Bar Lake is quite literally the lifeline of the county and because so much controversy has been focused on the lake in recent weeks, the editorial staff of the News set out to find the facts. What about our drinking water? Dredging? Swimming? Boating? Fishing? Land values and other things which affect our quality of life? Today's article on dredging by assistant editor Paul Page is the first the News will publish over the next several weeks. "What about Watts Bar?" We welcome your letters, concerns and comments.

By PAUL PAGE,  
Assistant Editor

NASHVILLE — Contrary to some reports which have been circulating recently, the Corps of Engineers has no plans for an additional lock on

Watts Bar Dam, according to Corps officials here.

John Case of the waterways management branch said the Corps and Tennessee Valley Authority have had some very preliminary conversations on the subject, but that is as far as things have gotten to date.

The possibility of the additional lock and the dredging of Watts Bar Lake which it could necessitate have been mentioned at public meetings several times recently in connection with pollution of the lake and the Clinch River. The meetings have been held by the Department of Energy in connection with environmental concerns as contained in a report from Martin Marietta Energy Systems Inc.

Case confirmed, however, that

another office within the Corps has placed a "hold" on all dredging applications placed by individual property owners. He said figures on the number of applications which are pending was not immediately available.

Case said he knew of no dredging on any scale being planned by his department in the near future. The Corps is responsible for the maintenance and operations of locks, and TVA has responsibility for other circumstances at the dam.

He confirmed the Corps and TVA, in cooperation with the towing industry, had conducted some talks in the "early planning stages" about an additional lock at Watts Bar which could require an "approach channel." But he added no target date had been set for a decision on

the matter. "It could be several years" before the agencies could come to a conclusion on whether to undertake the project, he said.

Goal of the project, if undertaken, would be to stimulate barge traffic on the Tennessee River.

The DOE environmental reports have pointed out that much of the contaminants its studies have found in the Clinch River are in sediment in the bottom of the deep channels and that Watts Bar Dam serves to contain them. However, at the meetings there have been reports of some contaminants being found below the dam.

The reports deal with 40 years of operation of DOE facilities at Oak Ridge.

# Rep. Duer 'blasts' lake reports

The quality of the water in Watts Bar Lake is better than ever now, according to Earl Lemming, project coordinator for the Department of Energy, who spoke to more than 200 people gathered at a meeting of the state's House Conservation and Environment Committee at Watts Bar Resort in Rhea County on June 28. The audience was composed of resort owners, area residents and over 25 high-level officials from various departments of Tennessee state government. House Conservation and Environment Committee Chairman I.V. Hills Jr. presided at the meeting.

"Watts Bar is tremendously improved . . . but that does not mean that everything has gone away. We do have a legacy. Polychlorinated biphenyls (PCB), mercury and radionuclides are in the sediment," Lemming said.

"The lake is an efficient sediment trap," Lemming continued. "It's there in the deep sediment, and that's what we have to look at now in terms of cleanup. We know it's (the water) better, but we want to go in and finalize the studies and reduce the uncertainty and come back to you with a firm assurance," added Lemming.

Gary Meyers, director of Tennessee's Wildlife Resource Agency, agreed saying, "One thing that has focused the spotlight on Watts Bar and DOE is that DOE is now complying with a federal process, a corrective process, for cleanup, which dictates a release of information and press releases. But in these news releases and data DOE has released to date, there is no new information. All of these (data) have been on the street some five and 10 years."

The resort owners attending the meeting were disturbed over a Tennessee Wildlife Resource Agency pamphlet stating "Watts Bar Reservoir — No consumption of catfish, striped bass, striped bass/hybrids. Limit consumption of large-mouth bass, white bass, sauger, carp and buffalo to no more than 1.2 pounds per month."

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"The manner in which it was done (worded) caused great alarm," Duer said.



Over  
the  
Ridge  
by  
Hayden Evans

*'Watts Bar did not suddenly become contaminated overnight. The contamination is no more than in other lakes . . . .'*

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"I don't think that we can do anything to salvage this tourist season," said Duer. "I think it's tragic. The contamination hasn't changed in 20 years. What's there has been there."

"The only change has been our reporting of it. Watts Bar did not suddenly become contaminated overnight. The contamination is no more than in other lakes in other areas," said Duer.

Duer said that as far as "water activities go, there is no risk. The only risk is prolonged consumption of fish that either feed off the bottom or are contaminated by the food chain."

The Department of Energy has announced the initiation of a major five-year research program at the Oak Ridge Y-12 plant to reduce by 80 percent the amount of uranium waste generated in government metal manufacturing installations. The Y-12 plant

will act as a focal point in demonstrating how uranium waste can be reduced through new methods of metal purification, shaping and recycling.

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# What about Watts Bar?

## Property owners 'not too worried'

**EDITOR'S NOTE:** This is the second in a series of articles about Watts Bar Lake. Because of the extreme importance of the subject to the economy of this area, and to the people who live and work and play near it every day, the News editorial staff hopes to be able to provide answers to the many questions left in the wake of recent 'negative' publicity about the lake. We welcome your letters, suggestions and comments.

By CYNTHIA GARRETT  
Rockwood Editor

**ROCKWOOD** — Recent publicity about the possibility of contamination in Watts Bar Lake has made resort owners more aware of alleged hazards, but they don't seem concerned about the affect it's having on their business or their health.

Brothers Ancil and Elzo Newport, owners of the now-closed Newport Resort just over the Roane County line in Rhea County, are not concerned in the least about lake contamination in their section of Watts Bar.

Ancil Newport said, "I think we have less contamination here in White's Creek than anywhere on the lake. We're two-and-a-half miles to the river, and there are nine fresh-water streams that come in. That makes White's Creek embayment contamination free."

Elzo Newport agreed with his brother, saying, "I'm not worried about contamination. The reports they've given for 15 years have said there is little (contamination) in the river, but it's in the deep sediment."

Both Ancil and Elzo said they eat the fish out of Watts Bar and will continue to do so.

"I eat all I can get," Elzo said, adding, "I've got 'em in my freezer

now and I eat them at least twice a week. I don't have any health problems."

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ever.'*

Betty Wallace, owner  
Caney Creek Marina

Fred Zeller, owner of Eden on the Lake in Spring City, thinks the threat of possible contamination has affected his business somewhat, but he's not sure how much.

"Business is ahead right now, but possibly for other reasons. I think there has been a negative effect related to fishing. That part of the business is off some, but I'm not sure how much can be attributed to that (lake contamination)."

Zeller thinks the most likely areas to be affected by all the recent publicity are fishing and tourism.

Although he is concerned about

the environment, Zeller said he doesn't feel differently about the lake than he ever has. "I don't fish, but I do eat the fish. And I accidentally got in the lake when I fell in going after tools or drills or something. I have five grandchildren that were here last year and they'll be here this year, too."

"Unless you ate fish four times a day and ate the skin on the fish, I don't think it would be a problem."

Zeller thinks much of the problem can be attributed to the media. "I think the media looks for sensationalism because that makes better headlines. If print is tight, they pick up on something to get attention. I think the water is cleaner than it was five years ago."

Publicity has created an interest and growing concern from people who frequent Zeller's camping, boating and swimming resort. "I get questions on it that need to be answered. It indicates a concern on the part of that person. I get phone calls some, too. They'll say, 'Tell me about the fishing.'"

Zeller feels the good flow of water in and out of Eden, located about a quarter-mile off the main channel, has a cleansing effect.

His wife Phyllis Zeller feels the same way. "I know people did some things wrong in the past. But mercury is heavy. It's not going to do anything. There's no radioactivity. It's buried 3 feet under."

"It has a certain life to it and it's almost dead now. It's been down there since the '40s or '50s. It's a shame that they've used that to scare people. The only thing the water has in it is PCBs. All lakes are coping with that now. Scientists still aren't sure."

Please see Lake, Page 2-A

PAGE 2-A

from page 1

# Lake

Mrs. Zeller is more concerned about other contaminants that are put into the lake. "You have to watch what people are putting in to pollute the lake. That's what really pollutes the lake. Also, things like gasoline from boats does more polluting than anything.

"It's a crime to scare people to be afraid of their own lake. I'm sure not going to worry about the mercury that's 3 feet under."

How this situation has affected business with the increase in public

awareness is "hard to evaluate," Mrs. Zeller said. "It will be interesting to see what happens for the rest of the season. People will get the word-of-mouth that it's all right."

Comments about resort owners not making any improvements to their businesses being the cause of slow business misses the mark by a long shot, according to Fred Zeller. During the five years he has owned Eden, Zeller has added over 50 boat slips, added 22 trailer locations for camping, built a bath and shower

house, added two rental apartment units, began selling position boats and providing service, added sand to the swimming beach, added a winter-time gravel boat launch to complement his summer-time cement boat launch and developed the playground area.

"Like any business, you have to improve and make it better. You can't stand still. I don't want to be the biggest, just the best."

Ralph Morgan of Crossville has been going to Eden on the Lake for 22 years. "We camp here every weekend. We swim, ski, inner-tube and fish."

is Morgan concerned about the threat of contamination? "We think it's all politics. It happened 25 years ago and they're just now finding out? Somebody's been asleep."

Doc Headline, also of Crossville, agrees. "We've been swimming here since we were 16 or 17. It's too late now." Headline isn't concerned about eating the fish, either. "We used to have a fish fry at the station

(1-40 Gail in Crossville) just about every week during crappie season." The Headlines and Morgans said they'll keep using the lake "until they put it."

Pat Satterfield brings her family from Chatsworth, Ga. almost every weekend to enjoy Watts Bar Lake. She's heard about the possibility of contamination through the media. "I've heard 'don't eat the fish' because they eat off the bottom of the lake. It doesn't bother me. Maybe it should, but it doesn't."

Margie Copeland of Crossville was a little worried when she heard reports about the lake. "But after I read articles saying the water was safe, I'm not worried. You hear so much you just really don't know."

"How much chemicals do you get in the chlorine in a pool? In the food we eat? Here the water is refilled. Where did they take the samples? If I could take the test myself — if DOE would distribute test kits and I saw the results for myself, I might stop using the lake."

Even though Copeland is not concerned, she admitted that her sisters-in-law won't let their children swim in Watts Bar.

Betty Wallace, who owns Carey Creek Marina in Midtown along with her husband Don, said she doesn't think her business has been hurt any by the publicity.

"Business has been as good as it has at any other time. Normally my best time of year is the Fourth of July, and we've been as busy as we've ever been."

Wallace isn't too concerned about the threat of contamination. "Whatever's in there has been there for the last 15 years. If it's not hurt us yet, I don't see how it's going to hurt us now."

"I'm sure there's some contamination, but it's well within the acceptable guidelines. All our boatowners are using the lake as much as ever."

Wallace thinks the thing that has hurt the fishing business the most is that "rockfish have eaten up all the

## Good fish

Evidence to refute the report of a lack of improvements at area resorts is easily seen at Carey Creek. The old 18 inch dock has been replaced with a 4 foot dock with concrete covers, and an electrical system and water have been installed on the docks. The office has been repainted, refurnished and refloored, and a kitchen has been installed.

"We may be a 'mom' and pop business, but we're staying here and we're living even if we don't make a lot of money," Wallace said.

Randy Jones, owner of Harbort Pointe Marina in Rockwood said he's just put over a million and a half dollars into his business, and the threat of contamination "has not affected us at all."

Jones said he eats the fish out of Watts Bar swims in the lake and is not in the least bit concerned. "This is the cleanest lake I've ever seen. I thought there was something wrong with the lake. I wouldn't be here."

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## Watts Bar issues: Unfounded fears, conservatism

I've just attended the public meeting at Spring City. As you will gather from this and the next column, I have reached somewhat different conclusions about the contamination of the Watts Bar Lake, and the needs for future action.

But first, I must report to you how competently, calmly and carefully the Department of Energy-Martin Marietta Energy Systems-Oak Ridge National Laboratory team made its presentations and handled the questions. I heard many appreciative comments among the audience. Overall, the meeting seemed to be better structured and received than the first one at Harriman.

Let's first discuss the reported radioactivity in the lake. Regardless of facts or figures, radiation seems to scare people more than the polychlorinated biphenyls or the mercury. With all the media hype, most people still don't have any idea just how "hot" the bottoms of Watts Bar Lake really are.

So let's try to avoid fancy definitions and units. (And if you are one of those funny people who have been asking us shore dwellers whether we glow at night, I would like you to pay particular attention.)

Most of the radioactive stuff (cesium) seems to be layered about a yard under the mud surface, along the center channels of the Clinch River above Kingston, and of the Tennessee River below. (Less has been found at Kingston itself.)

Now let's suppose you trained yourself as a champion diver, bought the needed special equipment, got to the bottom of the channel, dug deep enough to include that "hot" layer, brought all that up, and somehow built yourself a self-supporting, full-size mud statue. And then you hugged that statue just as passionately and long as you would your human partner. (Please don't ask me why.)

Believe it or not — the radiation dose that you would receive would be only about one-twentieth of the dose you would get from a similar hug with your regular partner! (Yes, with nature's compliments, our bodies have always contained traces of radioactive potassium-40. And, lo and behold, these traces far outweigh the traces of ra-



**Hurdles and  
Horsensense  
John  
Shacter**

dionuclides in the mud!)

I hope this form of the answer may provide some additional understanding regarding direct contact with the mud. That's why I asked some friends at ORNL to make this rough, back-of-the-envelope comparison. It is bound to be checked now, and I'll certainly tell you if it needs to be modified in any way. (Of course, if you decided to EAT the mud, we'd have to make another calculation! So let us know before you do.)

We are getting into the challenge of effective communications between experts, policy makers and the public. So let me touch on another potential misunderstanding among these groups.

Most professionals, including scientists and analysts, have been trained to be "conservative." Thus, especially in matters of safety or the environment, they are likely to make "worst-case" assumptions. In the meeting, as they displayed their various risk estimates, the speakers certainly emphasized this point. Yet — though it might have been music to the ears of an anti-nuke — I believe its significance was largely missed by the media and the public.

Most of you will probably agree that our whole society is now facing an enormous array of major problems or challenges — which are usually beset with great uncertainties, very expensive solutions and definitely limited resources.

There are the many needs of unintended or mistreated children and adults, of education, of acquired immune deficiency syndrome and other diseases, of crack, sex and crime, of babies having babies, of gang warfare and decaying cities, and of bulging prisons and treatment centers. Even within the environmental category itself, we face the challenges of global warming (greenhouse effect), of acid rain, of ozone depletion, of deforestation and desert spread, etc.

Regardless of the sincere but naive claims of each single-issue advocate, we obviously won't be able to just "spend" our way out of this long-neglected mess. However, it will still become increasingly important to allocate our always-limited resources, especially skilled people and money, among the most pressing needs as objectively as possible.

If we can agree on that, I would claim that extra doses of "conservatism" or any other potential biases would be seriously misplaced if they were to cause us to either overspend or underspend precious resources on a particular item, or if they otherwise inhibited the strength and effectiveness of our answers!

Already, new, stiff legal ("Superfund") requirements have been imposed, and there are reports of billions of dollars to be spent here, and well over \$100 billion on other DOE sites. Undoubtedly, incineration and some of the other cleanups will indeed have to be continued. We are progressing. But the actions of the tiny, but very potent, group of anti-nukes have always been perfectly predictable. Unless we learn a lot more about timely (really "preventive") and effective public information, there will be much more costly confusion and damage!

I believe the time has come for responsible technical societies and managements to support a series of workshops with intensive role-playing, etc. The objective would be to sharpen our wits and effectiveness with the media and the public — and do so while maintaining our integrity and credibility.

Why not try some local stabs in that direction? By the way, the audience obviously enjoyed Louis Toth's informal remarks and demonstrations of the many sources of radioactivity that all of us have always lived with. We could sure use a few more of him!

So what is the situation at Watts Bar Lake? What about mercury and the PCBs? And what kind of action will be called for? See you here, next Sunday!

John Shacter is owner of JS Associates in Kingston.

## The Roane County News

MONDAY

July 9, 1990

P. 1

# Watts Bar water determined safe for consumption

**EDITOR'S NOTE:** This is the third in a series of articles about Watts Bar Lake. Because of the extreme importance of the subject to the economy of the area and to the people who live, work and play near the lake everyday, the editorial staff of the News hopes to be able to provide answers to the many questions left in the wake of recent publicity. Readers' letters, suggestions and comments are welcome.

By **CHERYL DUNCAN**  
Harriman Editor

*Water, water everywhere,  
nor any drop to drink*

From "Rhyme of the  
Ancient Mariner"

**ROANE COUNTY** — Despite recent reports of contaminants in Watts Bar Lake, local and state officials have declared that the drinking water supply in Roane County is safe and does not appear to be affected by the substances.

Studies indicating the presence of mercury, PCBs and Cesium 137 in Watts Bar have been the cause for alarm from some groups in Roane County.

The water system in Harriman is virtually withdrawn from the problems, since the primary water supply is from the Emory River, said Henry Grigsby, manager of the Harriman Utility Board. Flowing from the Cumberland Plateau into Harriman, the Emory River is a tributary of Watts Bar.

"During low-flow periods, like this time of the year, some of the Clinch River water could make it up to the intake of our plant," Grigsby said. "However, Harriman's water supply would be less likely to be affected by those elements."

Since the intake of the Cumberland Utility District is from the Little Emory embayment, that water supply would also be virtually unaffected, Grigsby said.

Concern has been prevalent about the water supplies of Kingston and Rockwood, which border the lake. Although water department officials in those cities understand the fear, they adamantly deny any problems with the water supply.

"Everything is below standards that's been tested for," said Les Skidmore, water plant operator in

Please see Water, Page 2

## Watts Bar

boats are booked practically every weekend. I projected a 20 percent increase in business from last year, and at this time I have had a 12 percent increase," said Steidle.

"This thing about the lake is not something that has just happened overnight. I feel that it has really been blown out of proportion: the lake is no different now than it was 15 years ago," added Steidle.

Steidle went on to say that the fishermen at Blue Springs had experienced the best fishing they have had in the past four years. "One particular boat brought in 200 striped bass one night," said Steidle.

Tournament fishing is a big business on Watts Bar, and many of the tournaments start at Kingston City Park. One such tournament, the Wildcat Bass Tournament, is held each Thursday.

Claude Prater, co-director of the tournament, lives on the lake and fishes at least five to six times a week. Prater, like some of the marina owners, believes the publicity has basically resulted in fewer visitors coming in to fish on the lake.

"It hasn't hurt our tournament at all. We have found very few fish with bad places, and those we have found could have gotten the sores because someone had caught the fish before and mishandled it, taking away some of the protective covering the fish naturally has, causing sores to occur," said Prater.

Most of the fishermen at the tournament consider Watts Bar to be the cleanest water around. In many of their opinions, Watts Bar is the best lake in Tennessee to fish.

The prevailing attitude of marina owners and area fishermen about Watts Bar is that people are just now becoming concerned about something that has been happening for a number of years. They, like anyone, are concerned about the condition of our lake but, unlike many others, do not consider themselves or their businesses in any immediate danger.

What about Watts Bar? The majority of fishermen say they will keep fishing, while the majority of boaters will keep on skiing and boating. Sure they are concerned, but the ones we talked with say they do not see any immediate danger and will continue to use the lake until it is posted and they are prevented from doing so.



The Roane County News

What about Watts Bar?**WEDNESDAY**

July 11, 1990

# Local lake users say Watts Bar 'better than ever'

*'As far as I can tell, there's nothing in Watts Bar affecting the bass population. It seems if the pollutants were heavy, we would be finding poor-looking fish, but I have yet to catch any.'*

**Doug Plemons**

By **TONY CLOWER**  
Interim Sports Coordinator

**ROANE COUNTY** — The recent publicity about the environmental condition of Watts Bar has raised many questions about the status of the lake that has become an economic and recreational asset to our county.

What do the fishermen and boaters of our county think about the condition of the lake? Have the marina owners in Roane County experienced any economic loss because of negative publicity? These are people who use and see the lake every day and, as in all cases, each has his or her own and different opinion.

When one drives by the Kingston City Park, one should be able to tell by a glance that the fishing, at least in this immediate area, has never been better. According to Tony Tonachio, Kingston Parks and Recreation director, there have been 50 fishing tournaments working out of the park in the last six months, and there is no indication of anything slowing them down.

"We have had an excellent response to the situation as far as our tournaments go," said Doug Plemons, guidance counselor at RCHS and fishing tournament director. "The bass population in Watts Bar is excellent. The catches in this year's tournaments have been really good."

"As far as I can tell, there is nothing in Watts Bar that is affecting the bass population," added Plemons. "It seems that if the pollutants were heavy, we would be finding poor-looking fish, but I have yet to catch any. I just can't remember when the fishing in Watts

Bar has been better," Plemons concluded.

"The negative publicity about the lake has definitely affected fish sales from the lake," said Boyd Woody, Midway High principal and longtime fisherman. "But I take these fish I catch to homecomings and reunions, and the bad publicity about the lake sure doesn't cut down the consumption of the fish," added Holladay.

Woody. "In my opinion, the lake is cleaner now than it was 10 years ago."

"Rumors about the lake, which are justified by the Department of Energy, have drastically reduced the usage of the lake," said Bill Holladay, officer with the Tennessee Wildlife and Resources Agency.

According to Holladay, the negative publicity about the lake has

not been enough to put establishments on the lake out of business, but it has been enough to cause a definite curtailment in lake activities. "We are getting a lot of calls from local people asking if the lake is safe for recreational use, and the number of outside people using the lake has decreased," added Holladay.

Many of the key businesses along Watts Bar Lake are the marinas and campgrounds. Opinions of marina and campground owners vary on the effects of possible contaminants in the lake.

"The publicity has definitely hurt my business," said Judy Halliday, owner of the KOA Campground just off River Road. "I am normally booked up with reservations for the July Fourth week, and this year I did not have near as many people call for reservations," added Halliday.

"About 75 percent of my local business has not been affected. What we call transit or outside business has felt the most severe blow. Some may contribute this to bad publicity but I don't," said L.E. Browne, owner of the Long Island Marina on Paint Rock Ferry Road.

"I feel that the newspapers in Knoxville are the ones really causing the problem. The Watts Bar Association met and talked with state and federal officials who issued an advisory about the lake, not a warning," added Browne.

Larry Steidle, owner of Blue Springs Marina Inc. on River Road, said his business has yet to be affected by publicity about contaminants in the lake. "We have had a lot of phone calls from people in outlying areas asking questions, but many pontoon

Please see Watts Bar, Page 3-A

PAGE 2

from page 1

## Water

Rockwood.

Kingston City Manager Pete Lamon said his city's water supply is under the same circumstances.

"The water we take in doesn't have any contaminants we aren't able to treat," he said. Like Harriman, Lamon noted, "Our intake shouldn't be affected by Watts Bar unless you have a backup."

Kingston's source of drinking water is from the area of the Tennessee River just upstream from the Clinch River. The water supply in Rockwood is the King Creek embayment.

"Most of the water we treat is from the spring," Skidmore said. "We don't get it from the main channel."

Woody Smith, an environmental engineer in the Water Supply Division of the state Department of Health and Environment, confirmed that the three municipal water systems in the county have met all state requirements.

"None of the systems have any violations," he said.

The contaminants pose little threat to any of Roane County's water supply, Smith said. Each system is chemically monitored on a regular basis so that any trace of questionable substances is detected.

The only time those contaminants could become a danger in the water supply, according to Smith, would be in the event of a spill upstream.

*'The water we take in doesn't have any contaminants we aren't able to treat.'*

Pete Lamon

Smith said that all municipal water systems in the state underwent a radionuclides test in 1988. At that time, none of the systems were in violation of state standards for radioactive contaminants.

"It hasn't shown itself to be a problem," Smith said.

The next radionuclides test for municipal water systems is planned for 1992.

Drinking water from the county's wells is directly unaffected by substances in Watts Bar, said Don Rima, a geologist with the state Department of Health and Environment in Nashville.

"Any Cesium 137 that gets in a surface stream is not likely to get into the ground water in that part of Tennessee," Rima said.

According to Rima, there would be reason for concern if wells were drilled into course materials. However, Roane County's estimated 1,800 wells are drilled into rock, he said.

The same holds true for PCBs, which Rima said could not get into underground springs through lake contamination. However, the man-made chemicals can make their way into ground water if they were allowed to infiltrate through landfills, sewage or sludge pits, he added.

Mercury in Watts Bar would not be a concern for the ground water, Rima explained. Since the element is a naturally occurring substance, it is entirely possible that it could get into well water independently, he said.

According to Rima, TVA collected two dozen samples of water from Tennessee wells in 1975. One sample, obtained from a well at Watts Bar Nuclear Plant in Rhea County, showed an amount below state standards, which is 2 micrograms per liter.

"There isn't a single determination (across the state) that is not above the determined limit," he said.

# When the pace slows, look out for summer surprises

**OAK RIDGE** — OK, tortured guests and peaceful dreamers, the theme for today's column is summer surprises.

**A couple of examples**  
**BACK IN THE SADDLE** — Surprisingly enough, it appears there will be a union "referral" system put into place for construction activities on the Department of Energy's Oak Ridge reservation.

Indeed, some folks may be stumped — particularly the host of non-union, subcontractors that have assumed an increasing share of the construction workload at DOE's Oak Ridge plants.

DOE reportedly was much against such a development when the issue dominated contract negotiations between Rust Engineering, the agency's long-time construction chief, and the Knoxville Building and Construction Trades Council.

With the subsequent strike by construction workers and Rust's lame-duck status, however, things changed.

MK-Ferguson, which replaces Rust later this year as construction manager, was brought to town early by DOE in an effort to reach a long-term agreement with the unions. (Workers returned to work as a good-faith gesture while negotiations resumed.)

According to grapevine reports, MK-Ferguson is ready to live with a union-referral system and has now presented a proposal to DOE on the matter. The construction outfit supposedly has dealt with such a system before and found it workable.

The unions (eagerly want the referral sys-



**Frank Munger**

tem as a means to future job security, which is threatened because of the mounting presence of sub-contractors — most of them non-union — on the government work sites.

The surprise is that DOE apparently will support a referral system in some form, despite its previous opposition. (Already questions are being raised about a possible conflict with "right to work" guarantees.)

At least one construction sub-contractor, Phoenix Engineering, has expressed its disapproval.

"... Phoenix Engineering Inc. feels that its position as a contracting firm is jeopardized if a mandatory union referral system is allowed to be forced on our company," Lance Dunaway, the firm's president, wrote in a letter to Rep. Marilyn Lloyd.

Dunaway raised a number of questions about the rumored agreement, including, "Under a union referral must contractors be a signatory to unions and their work rules?" and "What would be the status of current employees who are non-union, and would existing employees have a right to refuse union membership?"

Mom used to read you those sugarcroated fairy tales at bedtime to help you sleep well at night?

Well, that same maternal strategy works surprisingly well with adults, too, or so some believe. I know their efforts are well-intentioned, but I've been a bit amazed at some of the things being said to sedate those people concerned about the pollution in Watts Bar Lake.

Perhaps folks are trying to counter some of the wilder exaggerations about the pollution threat, and, yes, I've heard a few.

It's fine to put things into perspective so people won't needlessly panic, but some of the fodder has stretch marks on it. For instance (and there are other examples), here's a statement from a press release issued by Rep. Marilyn Lloyd, following a meeting with DOE officials:

"There are no contaminants in the shallow water areas."

That, of course, is patently untrue. While the highest concentrations are in the old river channel and tend to be a couple of feet down in the sediment, there is contamination throughout the reservoir.

"That bothered me when I saw that (Lloyd's statement)," said Dr. Bruce Kimmel of Oak Ridge National Laboratory, head of the pollution-tracking effort. "It's incorrect. It's very low levels, but because they (pollutants) are located in those shallow waters closer to people, we're in the process of going back and taking many more samples in the shallow areas."

Stay tuned.

Frank Munger covers the Department of Energy for The News-Sentinel.

**BEDTIME STORIES** — Remember when

The Knoxville News-Sentinel  
July 12, 1990  
P. A16

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## Family enjoys visiting, fishing at Watts Bar

**Editor, The News-Sentinel:**

All that we have heard and read are the bad things about Watts Bar, and I am sick of it.

My family and friends have been going to Bayside Marina and staying with the Fisher family for the past six years and love every minute of it.

I live in West Knoxville, five minutes from downtown and five minutes from Loudon. We choose to go to Watts Bar because it is not full of trash, and the water is much clearer.

When we come home, we always eat

the largemouth bass that we caught there, and we haven't changed colors yet.

You people that are stirring up this stink — why don't you do something good like find a cure for cancer, stop the drunk drivers from killing our families. Better still, stop the people that are burning our beautiful American flag.

If you want to have a good time, come to Watts Bar Lake. We will probably see you there.

Charlie Tallent  
Knoxville

## *What about Watts Bar?*

# Swimming not so risky

By DEBBIE GIBSON  
News Intern

ROANE COUNTY — Roane Countians can rest easier when considering a dip in Watts Bar Lake.

Swimming in the lake this summer has increased if not doubled this year. In view of recent reports of pollution and contamination, one could expect the opposite.

Swimmers at Roane County Park, Kingston City Park and the Caney Creek informal swimming area all agree that they have concerns about the lake, but those concerns appear to be centered on fish consumption rather than the effects of swimming in the lake.

Water in Watts Bar lake is checked yearly for fecal coliform bacteria, which, according to Dr. Tom Byrne, associate dean of the Math, Natural and Social Science Division at Roane State Community College, "if present in the water, indicates that sewage treatment plants are inadequately treating human waste."

The danger of high levels of this organism in swimming areas is that, Byrne states, "if large amounts of lake water are swallowed, a gastrointestinal upset can occur." A familiar member of this group of organisms is Salmonella.

Joe Fehring, environmental engineer with the Tennessee Valley Authority Water Quality Division, states that water at Roane County Park, Riley Creek, the informal swimming area at Caney Creek and the Southwest Point Park location was tested over a two-week period in June.

TVA and the state Department of Health and Environment worked together to choose testing sites, sample collection and test performance. The main criteria used for determination of possible contamination is more than 200 colonies per culture of fecal coliform bacteria. "The highest bacterial count was from the informal swimming area at Caney

Please see Swimming, Page 2-A

## from page 1 Swimming

Creek, and that was it, which makes the water in the areas tested especially clean," said Fehring.

Lifeguards at Roane County Park advise that people ask if it is safe to swim there and express concerns about the lake, but no one has refused to swim there specifically because of fear of pollution.

According to Lifeguard Robbie Tharion, approximately 150 to 200 people use the swimming area each day. He emphasized the fact that not only was the water safe, but natural springs constantly move and circulate the water. Along with safe water, Tharion stressed another safety factor for the park. "There has never been a major accident or

drowning at the park," he said. Lifeguard Mike Ellrey worked with the Environmental Sciences Division of Martin Marietta Energy Systems Inc. last summer as part of a cooperative program with Roane State Community College.

The project involved testing water, animals and fish from surrounding waterways. He believes concerns should be centralized on the waterways around Oak Ridge and the Pigeon River. In his opinion, "The water in the lake is 10 times safer than in the creeks in the surrounding areas, especially the Pigeon River."

According to Bob Cook, group leader of the research staff of the

Environmental Sciences Division of Martin Marietta, 15 miles from Watts Bar Dam to Norris Dam were chosen for sampling fish, water column and sediment.

Teachers, college and high school students participated in a cooperative educational program last year to help collect samples. The samples were sent to the laboratory at the K-25 facility, and the results have not been released. Sediment samples were taken as deep as 4 feet. The samples taken are part of a new and detailed study that is hoped to provide information to evaluate the risk to humans.

Lee Shugart, research staff member of Martin Marietta's Environmental Sciences Division, whose field is the genetic aspect of the DNA of test animals, stressed that studies take time to conduct and that "quite often, it is difficult to show a correlation between exposure and health problems."

Both Tony Trenchard, director of Kingston Parks and Recreation, and David Woods, director of Rockwood Parks and Recreation, stated that no one has mentioned using community pools rather than the lake because of pollutants. Roane County Park Superintendent J.W. Harmon agreed by saying this has been "the best year ever. Business is double from last year." He states that a lot

of travelers have used the park this year, and no one has asked about the water.

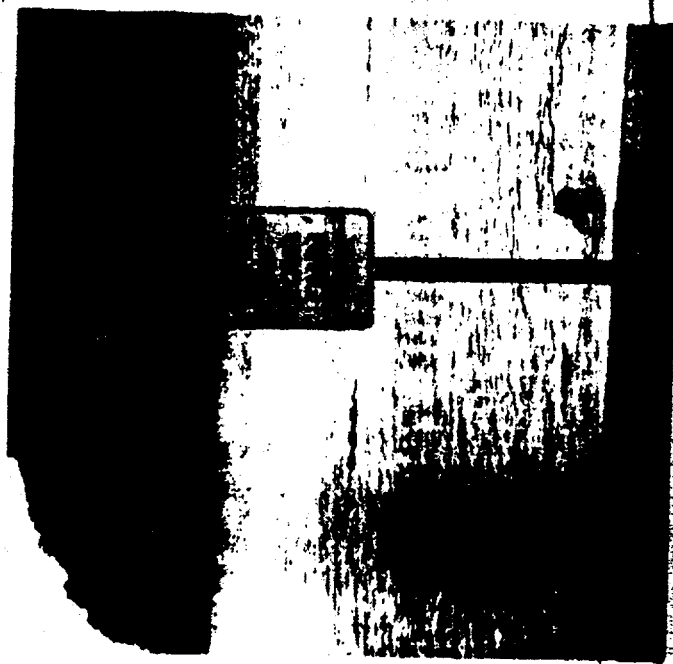
Area pool dealers say that business has increased, but believe the reason is the hot weather rather than fear of swimming in lake water. All agree that no customer has purchased a pool because they don't want to swim in Watts Bar Lake.

John and Cindy French, of Kingston, don't let their daughter swim in the lake because they believe the contamination is "there to be dredged up, so it's in there." They go to Kingston City Park for Shannon to use the playground.

The Frenchs say they would "rather spend a little more and go to a public pool; then you don't have to wonder." They agree that, "If people hear all the stuff and still choose to swim, then they either have to not believe it, or not care."

A group of four mothers with a total of 10 children speaking in the lake at Roane County Park agreed that there are risks involved in anything you do. They all think about the situation but feel that, "Until actual facts are released about what water exposure will do to you, you don't know for sure."

Another park user states, "If they thought it was dangerous, they wouldn't let people in the water."



SUNNY LIME PMS clearly knew the choice up to the individual swimmers. This year many Roane County residents have made their choice and the public waters are overflowing with swimmers. (Staff photo by Debbie Gibson)

# How urgent is the 'cleanup' of Watts Bar Lake?

As conservative scientists and program managers like to stress, there is of course a "need for more data — before remedial action can be initiated" at Watts Bar Lake. And it is a rather safe prediction that there will *always* be a need for more data. Explorers are hardly ever satisfied in that regard.

However, as I tried to point out in last Sunday's column, an excess of concern or conservatism on any one issue is not necessarily in society's interest. In this case, there had been hardly any preparation of the public prior to the releases of the "preliminary" and "tentative" contamination reviews.

For too many weeks, the public stage had been surrendered to the quite predictable, eager fear-mongers. Notwithstanding the eventual public meetings, there still haven't been any succinct, clarifying statements by responsible top Department of Energy or Martin Marietta Energy Systems officials.

Nor have the repeated implications helped that more unpleasant news and drastic remedial options (What? Dig up the muds of Watts Bar? Do what with them, at what cost?) may still be ahead of us.

Qualified bottom-line expressions like "no imminent, short-term dangers to the general public" don't help any, either! They merely make the already suspicious reader or listener wonder what unpleasant facts are still being kept from him or her. He gets the impression that the people in the know are trying to calm him down about his safety, today, but not necessarily tomorrow or thereafter. So his concerns remain.

Rashes of national magazine articles and innuendoes by eager regional news reporters are continuing. Those of us who live on the lake still get frequent questions and expressions of concern about uses of the lake, from local people as well as tourists.

Many active or retired local technologists are thus getting a bit amused or tired about what seems to them to be gratuitous qualifications. They feel that it is not in the public interest to allow or, in effect, feed the continuation of concerns for which there is absolutely no justification from the data at hand!

In this column and the next, I shall try to summarize my impressions from the reports, meetings and follow-up discussions. And I



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urge any involved investigators or reviewers to enlighten us, if they feel that any of these impressions are in error.

First of all, by far the biggest mortality and injury risks at Watts Bar Lake have nothing to do with Oak Ridge or nuclear or other industrial activities. They result from accidents due to fun activities like boating, water-skiing and swimming. Next, assuming that you are not in the habit of eating the muds, there could be serious health risks if you drank too much of the lake water — not just a rare swallow or two, which any swimmer or skier would get. After all, most lakes contain all sorts of infectious bacteria (e.g., E. coli) from human and animal wastes, along with all sorts of viruses, smelly algae, etc., etc.

None of this is unique to Watts Bar Lake, and not even the most extreme anti-nukes have questioned these rankings of risks.

According to some, but not necessarily a majority, of investigators or regulators, the next most important contaminants of many lakes in the industrialized world are what all media like to refer to as "known cancer-causing PCBs." Polychlorinated biphenyls have been used for many years in the manufacture and operation of electrical motors, transformers, etc. And most experts seem to agree that past human (not just animal) experiences — even with concentrations of PCBs much higher than those in the lake muds or even in bottom-feeding fish — do not justify general adjectives like "known cancer-causing," as far as people are concerned. In any case, it is still a disputed issue.

It would be prudent, indeed, for any of us to avoid routine consumption of mass quantities of bottom-eating fish (or, for that matter, any other single food item). And it is well-known that pregnant women or young children would be more sensitive to such excesses than the general public.

Note next that the radioactive elements (mostly cesium-137) and

mercury, the two unique Oak Ridge releases of the mid-1970s, have since been so widely distributed along the river bottoms and so buried under a yard of subsequent mud deposits that in all probability they have been eliminated as health hazards.

In last Sunday's column, I led up to my invention of a new unit of contact exposure to radioactivity. You have heard of ESP? This is the ESH. It is the "equivalent spouse hug" — or the intensity of exposure to which you are subjected when you hug your favorite, but *always* radioactive, human partner. I also promised to have the figure checked and updated as necessary. So here it is:

Drs. Gordon Blaylock and John Witherpoon of Oak Ridge National Laboratory have estimated that you would receive exposures of anywhere from 5 to 6 ESHs down to zero, if you built yourself a statue from various diggings of Watts Bar Lake and embraced it as passionately as you would your favorite human partner. Generally, you would have to dive lower in certain center stretches of the channels to get mud at the higher levels. The lowest levels are likely to be found in the shallower shore areas. The same trend exists for other solid contaminants like mercury.

(At intensities of 5-6 ESHs, in other words, you would have to embrace your human partner five to six times as long or as often to get approximately the same dose of exposure as from the statue.)

Obviously, sources of harmful releases need to be identified and sharply curtailed or stopped. Everyone is already focusing on that. There is an obvious drive on minimize wastes of all sorts, and to improve the safety and effectiveness of old and new disposal methods, including incineration. Waste treatment technologies and industries are in a period of rapid growth. And the local emphasis is already placing the partnerships among old and new Oak Ridge contractors, the University of Tennessee and the Tennessee Valley Authority, in positions of leadership.

I plan to continue the list of conclusions and remedial actions in next week's column.

John Shaoter is owner of JS Associates, Kingston.

## Last of 'Watts Bar: Where do we go from here?'

Before I return to the Watts Bar score, and what "reanalysis" steps we need to take (based on all of the information to date, the obvious answer is absolutely none!), let me divert a bit to the government's shockingly belated "Hanford reevaluation." The two situations should teach us several different lessons on public information, confidence and decision-making.

The Hanford releases of radioactive iodine in the 1940s and 1950s appear to have been very serious, indeed. Apparently, thousands of people in the vicinity received doses from a few rats, roughly equivalent to dozens of chest X-rays, to as many as 5,000 rads! — "fortunately" over an extended period of time. Such an obvious cover-up, over the decades, is nothing short of a major official information and credibility scandal.

In my opinion, the harmful societal consequences of such belated information releases may well rival those of the radioactive releases, themselves. It is not very flattering to our system to have it turn out that the Soviet Union's "glasnost" (openness) on their Chernobyl accident (which still left a lot to be desired) put our multi-decade Hanford cover-up (as so to phrase!

Our 40-year information delay seems to reflect a shocking degree of official negligence or insensitivity, clear through the 1980s! Certainly, early arguments for wartime security or national security could not be reasonably stretched to that extent. Searching questions need to be asked and answered. And in today's environment, it would not



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Shacter

surprise me to hear calls for some sort of new legislation that would authorize criminal conspiracy charges, along with an independent public oversight office to discourage such stupid and arrogant cover-ups in the future!

In my preceding columns, I raised the question why the public hadn't been better prepared and educated about the safety of Watts Bar Lake before the reviews were made public. This would certainly have contradicted the predictable antics of the anti-sites and some of the media, and could thus have avoided the damages of local and visitor concerns.

Now, of course, with the Hanford example, one has to wonder to what extent the public would still believe official pronouncements — and how official credibility can be restored.

What is the situation at Watts Bar? As I have pointed out, the results of the lake have been sampled and analyzed. Emphasizing the Oak Ridge National Laboratory scientists: On the basis of the information, to date, they have in effect concluded that most of the remaining solid or attached contaminants, including mercury, cesium-137 and polychlorinated biphenyls, have been so widely distributed and covered (by about a yard of more recent muds) that they pose no

try to dig the contaminant layers up, and remove them — where to end at what cost? — now or in the foreseeable future!

In fact, trying to uncover or disturb the buried layers by massive dredging may well be the most ill-considered action that could be taken — considerably worse than leaving them in their current, relatively stable state. Because of natural decay processes and the prohibition of further releases, contamination like cesium and the PCBs are likely to diminish over the years, in any case.

You will recall that ORNL's highly conservative studies ranked the risks of PCBs from massive fish consumption considerably higher (well not very high) than either those from cesium or mercury. So let's elaborate a bit.

First of all, contrary to the mercury or the radionuclides, PCBs are not unique to Oak Ridge. In fact, experts seem to agree that most of Watts Bar's PCBs may well be due

to all sorts of mostly electrical equipment and industrial or storage sites, upstream of the lake. The public is not aware of that, and it should be!

Moreover, Watts Bar doesn't even contain the most PCBs around here. There are significantly higher levels in Port Loudoun Lake — closer to Abingdon and Knoxville, and, by the way, to some of the anti-sites and the media who have been lately so concerned and vocal about conditions at the more remote Watts Bar! So, obviously, were it not for sources at the upper lake, the Watts Bar concentrations would be considerably lower!

Nor are PCBs unique to Tennessee. They are found in many of the lands and just about all of the river systems of the industrialized world. Except for its vicinity to Oak Ridge, Watts Bar would definitely not be the top-priority lake around here or anywhere.

Furthermore, in accordance with the results of the studies to date, I see absolutely no reason for the threatened Corps of Engineers'

limitations on the building of additional private docks! Our strong opposition to such unreasonable and unnecessarily burdensome restrictions should be made clear to the Corps and the Tennessee Valley Authority, before they are issued. On the other hand, we should support the requirement for specific additional sampling before any permits for more massive dredging are approved.

Our government has no money of its own. It is our money and critical people that we are talking about. Our politicians have already committed hundreds of billions of our future dollars on the savings-and-loan bailouts and other escapades. Surely we can't afford to waste additional billions on every new agenda that all kinds of single-issue extremists are trying to come up with. If we did, we'd be driving our "rich" Uncle Sam — and ourselves — into the poorhouse, for sure!

John Shacter is owner of JS Associates in Kingston.



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# *What about Watts Bar?*

## Hopkins open about lake issue

By PAT HOPE  
Editor  
and HAYDEN EVANS  
Oak Ridge Writer

(Editor's Note: The following interview with Clyde Hopkins, president of Martin Marietta Energy Systems Inc. is the last in a series called "What About Watts Bar," which deals with the controversy surrounding contamination of Watts Bar Lake.)

OAK RIDGE — The NEWS: We're trying very hard to present a clear

picture of what this contamination deal is all about.

Thus far, we've talked about dredging, lake property, drinking water and recreational use of the lake and despite the fact that many experts from the Department of Energy and Martin Marietta have already addressed the subject, the NEWS felt one vital link was missing — hearing from the top management of each of those organizations, top management such as yourself and Mr. La Grone. We felt people

would find it reassuring to hear about the lake in your own words.

CLYDE HOPKINS: I think it's extremely important that we in Energy Systems and the Department of Energy stay in contact with the community in terms of regular communication and no matter what our difficulties, we need to be open and characterize them accurately for the communities we all live in.

NEWS: On that thought it occurs that in the 50s the Oak Ridge facilities played the part of the "hero" following World War II and all, but now they seem more cast in the role of "scapegoat." You were here in the 60s, were you not? I'd like for you to comment on how those roles have become reversed.

HOPKINS: Yes, I was. I was right here in this plant from 1952 to 1970, the first 18 years of my career were spent here and I was here during the start up of the nuclear fabrications business. I happened to be in the production scheduling business that's what I was hired in here to do, so I was acutely aware of the pressures that were being placed upon this facility to produce maximum products out of enriched uranium and out of lithium to support the nuclear weapons program and get weapons in stockpile in a hurry.

I'll tell you this organization was just totally committed down to the last person to doing everything possible to get weapons components out of this plant as fast as they possibly could. I think it's fair to say I worked many nights every week changing schedules so the recipients of our products would know what they could expect out of this plant because every day you'd run into different problems, unexpected problems, and the part coming out of



CLYDE HOPKINS

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Hopkins...

the cascades, the lithium cascades here, that had been forecast was changing from day to day, and as a consequence of that we ended up recalculating schedules on a day to day basis to tell the department of defense what was coming in the way of nuclear weapons. So the pressure was really on. Obviously, we were trying to defend the country. Everybody was all in favor of that then when the world situation required it.

NEWS: Did we know much about environment back then?

HOPKINS: I never heard anything about impacts on environment. We were sitting here on a 56,000 acre reservation and I don't think people were all that concerned about material like mercury getting off the reservation. I don't think it was in people's minds, their concern was getting lithium processed, using this mercury and getting it into weapons components to defend the country.

I think the people in this country have felt a sense of patriotism because of their ability to contribute in this arena that probably no other industry in the country has ever felt before. Now the world conditions have changed, since the 50s and 60s, and as world conditions change obviously people's views change about everything.

The other thing that's happened, of course, with the nuclear power industry coming into being and having a lot of people question the safety of nuclear power and that has reflected on anything nuclear that's going on in this country. So, it's unfortunate things have taken this turn, nevertheless, that's what's happened.

NEWS: Talk a minute about the feelings of the people who work here today.

HOPKINS: Today, as compared to then?

NEWS: Yes, do they still feel patriotic?

HOPKINS: Yes, there's still a significant sense of that here but, of course, a lot of people from back in that era have retired. There's not many of us left. In another five years there'll be essentially none of us who were in the midst of that, so the new people coming in can't get the feeling we had to the extent that we had it back then.

I do think that people who come to work in Oak Ridge — total — have one good feeling about coming to work here and that is that we're in three different businesses and if they happen to come to work in a weapons fabrication plant and decide, and I'm talking professional people now, and decide they'd rather cast their lots — their working careers — in some other area, then we make it possible for people to move to enrichment or to the lab or to whatever.

I think there's still a sense of accomplishment here associated with the fact that every nuclear weapon in our country's stockpile has some component made in this plant. I think people feel good about that but when the media pounds you all the time about being in the nuclear business and the long range impact on the environment and the health and safety of the people associated with this business, then I think ultimately it has to take its toll.

NEWS: Certainly that seems to have been happening lately.

HOPKINS: But, I can't blame them. Young people do ask us a lot of questions about the future of this business and I'd be doing the same thing if I was starting out and saw the environment we're working in and saw the anti-nuclear sentiment in this country. I might have some hesitation about deciding to have my career expanded here, I really think I might.

NEWS: In your opinion is the Clinch River and Watts Bar contaminated? Is the water bad and what would you say to people who want to use that water? Do you use it?

HOPKINS: Well, let me start off by saying as strongly as I can, something about the competence of the people we have here at the Oak Ridge National Laboratory. I think when you put the Environmental Sciences Division, the Health and Safety Division and the Biological Division at the Lab together you've probably got the greatest collection of scientific talent to deal with these issues that we're dealing with that I know of anywhere in the country and probably anywhere in the world.

So, our scientific folks have great talent and one thing you have to know about a scientist is, that he stakes his career, his life essentially, on his research and his data. A scientist stands by that data under the scrutiny of management and certainly under the scrutiny of his or her peers. People express concern about the validity of data, but I think the average person doesn't realize the commitment the scientist has to his or her data.

I think to begin with then we have to feel very good as a company and as Oak Ridge Operations of DOE that we have this talent here to deal with the issues we're dealing with today.

NEWS: So the reports we received were accurate?

HOPKINS: Yes, I have absolute total confidence that these people have given it their absolute best and they are as good as they are anywhere in the world and the data we've gotten is as good as anybody can calculate based on today's knowledge and technology.

NEWS: Do you personally use the water (in Watts Bar)?

HOPKINS: I don't swim. I don't swim anywhere, not even in a pool, but I do eat fish out of there occasionally. I don't fish myself but I know people who do and when they bring me fish I'm delighted to eat them. I would have no problem swimming there if I had the time to do that.

NEWS: Well, one of the main fears seems to be with dredging. We're hearing everywhere that we shouldn't dredge. Is that your feeling?

HOPKINS: I think the less dredging we do, and I might say on that story, there's a lot of communication going on and you may know better than I about the dredging business, but as I understand it there's a temporary halt to any kind of dredging either commercial or personal until discussions are over among the agencies involved, TVA, the Corps, DOE and so on. Discussions are either going on or plan to occur by our legislators in Washington as well as on the state level. I think there is a temporary halt to any kind of dredging until all those take place and until an agreement can be put in place about what the future guidelines are. So, I think it's the right thing to do to stop it temporarily.

NEWS: Where are we in the assessment/clean up mode? How much longer will the assessment take?

HOPKINS: Let me say a word about assessment. I know people feel that it takes a long time to do assessment when you talk about several years. But one of the things you have to realize is the seasonal impact on the reservoir and on the river associated with the differences in rainfall and temperatures. What you need is a long period of time to assess the situation so you can be as sure as you possibly can that you've come to the right conclusion on how to remedy the situation. I think it's fair to say, no, I know it's fair, that

as far as assessment, I feel very comfortable that it's going to take several more years to do that.

Based on all the data we have thus far we don't feel like we're doing any great damage to the environment or affecting the health of any of the people who live and work here so we ought to take the time to do the best assessment job we can do and then come up with the appropriate alternative for dealing with the findings. Otherwise, we throw money at a situation and often it's wasted. Now, if we were getting readings that said we've got a real health problem then I think you'd pull all stops and you'd go spend whatever money it took on a short term basis to try and remedy the situation, but when you're in the position that I believe we're in right now, I think we're doing the right thing. It will take several years to do those assessments.

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NEWS: And the off-site part of that will take even longer?

HOPKINS: Sure, but the assessments have been going on since the 40s about what's happening out there, but not to the degree they are now. The Laboratory has been interested since the 40s about what it was discharging and in 1968 when we decided to compile all the data that had been collected over the years associated with radioactive discharges from the Lab, we found the first report. I think it was dated 1969, with data in it, so this is not new interest in a problem, it's an interest that the Laboratory has had for a long, long time.

NEWS: Would you comment on the legal aspects of the visits of the tiger team?

HOPKINS: Well, there's a process that's going on that's called "rulemaking" that deals with the liability contractors assume for operating these places. Rulemaking deals primarily with what's happening inside the plant and what happens in the way of incidents that might impact off-site folks. Now, as our current contract exists with the DOE we are totally indemnified as the contractor for any incidents that might go wrong in this plant. That effect people inside as well as any effect that might occur on the outside. The intent of rulemaking is to place more liability on the contractor and not have the contractor totally reimbursed for all costs through fines and penalties as well as criminal action. Rulemaking has been commented on by all the contractors and it's my understanding that a second version of the rulemaking, having taken into consideration the comments on the first version, will be coming out sometime this fall and then we will be allowed again to comment on the second version of rulemaking, perhaps in a hearing setting with the Department of Energy, and then a third version will come out which may be the real thing.

Until the real liabilities are defined it's hard to say what we as the contractor can end up deciding as we continue. The thing we're very clear on under the Price/Anderson Act is that if we as managers of this place, the top people, willfully and knowingly do something that impacts the environment and the people here, then we're liable for criminal prosecution. There's no question about that.

NEWS: How would that affect Union Carbide since it was the contractor when most of the contamination we're talking about occurred? Would it share the liability?

HOPKINS: No, again, back to the current contract agreement. Whatever liability we incur or whatever cost we incur associated with the operations here, under the Carbide contract as well as under the Martin contract, we're covered. DOE would reimburse all those costs today. Carbide would not incur any financial loss because of its work here.

NEWS: How does Oak Ridge compare to other DOE facilities? Is it safer?

HOPKINS: If you look at safety records and compare us to other DOE facilities I think it's fair to say until this year we have had the second best record in DOE, historically. Dupont/Savannah River has always been the leader in terms of safety records. They were always the people we were striving to catch up to. Let me put that in perspective for you. We measure our industrial safety in terms of lost work day cases which means a person has to be off from work for an injury or illness of some kind. Traditionally, in the four sites our lost work days would run in the range of 3-10. Dupont's would run in the range of 1-5. Now, if you look at other DOE facilities you will find them significantly greater in the long pull than our experience has been. In the last year, however, our safety record has been embarrassing because of the number of lost work day cases we've had. This calendar year we've had about 30 lost days. Change in the regulations regarding work day classification may account for part of it.

I want to be honest and say our performance has been worse than it has in the history of this company.

NEWS: What do you attribute that to?

HOPKINS: I wish we knew the answer to that but one of the reasons is the intense pressures we put people under in trying to deal with all the new health and safety and environmental regulations that are coming all the time and trying to have people deal with those in very short order and trying to have people prepare for tiger teams and all the audits and surveys. We believe this extra pressure we're putting on people takes their mind off the day to day thought processes with respect to safety. I don't know if that's right or not, all I know is that this organization has never operated under any more pressure than it has operated under in the last two to

three years and our safety record has gone to pot. It has to be associated with that pressure.

NEWS: As you know Hanford has been in the news lately. How does Oak Ridge compare with what's gone on at Hanford?

HOPKINS: I'll have to say I don't know a lot about what's going on in Hanford but I can tell you the problem we're dealing with here is a radioactivity problem that comes by way of water, primarily, and fish, and we don't have any airborne problems that even begin to approach what we've read about in the Hanford area. We just don't have any airborne discharges of that kind that will affect people that way. I think it's fair to say when you have airborne contamination the impact is significantly greater than the kinds of contamination we're talking about. Of course, I'd have to get some technical people to put that in to quantitative context for you.

Also, we need to remember that over the years we've had epidemiological studies of our workers. When you talk about instances of cancer here, we're lower than the overall population, and there's several reasons for that. Number one, we're not discharging anything that impacts people in terms of cancer or exposure to things that cause cancer. Number two, people

here are very health conscious, exercise conscious, diet conscious, no-smoking conscious, so naturally they're going to have a better health record on the average. We don't see anything on a gross basis that says we've got any cancer-causing concerns here. Instead we've got less here than most places.

NEWS: Has the contamination issue here been sensationalized and overdone by the media, and by environmentalists? How do you and your employees feel about it?

HOPKINS: Personally I would not have worked and lived in Oak Ridge and exposed my family to anything I thought was harmful. Obviously, I've been here the better part of 39 years now and I feel very healthy. Who knows what might happen to me tomorrow but it could happen to me no matter where I lived.

You can't ever let your guard down. I think that's the point we need to make with the public. We're always concerned about the operations here and the potential impact of those operations on our employees and on the communities around us and we will always be doing the absolutely maximum effort to determine what's happening to our people and the communities around us. So, no matter how good we feel about our performance to date it has to get better.

# Watts Bar contamination raised by Roane County executive candidates

by Karen Ann Simsen  
Oak Ridger staff

Roane County Executive candidate Clinton Sandmel said he wonders why people are just starting to speak out against the Department of Energy's pollution of Watts Bar Lake.

"They have been contaminating our lake since the 1940s, and we are just realizing it now? It is like going after the chickens after they've gotten out of the house,"

Sandmel said Tuesday at an informal candidates rally held at Oak Ridge Country Club.

Sandmel and incumbent Ken Yager were two of the four county executive candidates who attended the event sponsored by the League of Women Voters of Oak Ridge. Fourteen of the county's 102 candidates attended.

Sandmel's comments referred to recent media attention to DOE's release of heavy metals, radionuclides and toxic chemicals

over several decades into Watts Bar Lake. DOE held two recent public meetings, one in Roane County, to explain its current project to characterize the types and amount of contamination. Sandmel also opposes private landfill and medical waste incinerators in the county.

Sandmel also disagreed with Yager's mention of the great strides taken to improve rural fire protec-

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## RALLY: Charlie Rodgers was only sheriff candidate

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tion and ambulance services in the county.

Sandmel, who said he was a member of the Roane County Auxiliary Police and an emergency medical technician, described fire protection in the county as "underequipped and undertrained." He added that the ambulance service is not always accessible to all residents of Roane County.

Yager told people at the rally that his eight-year reign as county executive has been a successful one, pointing to an "A" credit rating by national bond companies. He also noted that Roane has received a larger amount — \$3.2 million — in grants for economic development than 93 of the state's 95 counties. Yager has also spoken out publicly against importing out-of-county waste.

All three superintendent candidates — incumbent Jess Plemons, Larry Sills and Keevin Woody — spoke briefly at the rally.

Plemons said he felt the system had taken great strides in improving the system's curriculum, but he admitted there has been little progress in the area of facility improvements.

"We have failed to make any facility improvements," Plemons said.

He said educational research consultants are studying several proposed high school building projects that would best fit the educa-

tional needs of the students. Also, the Knoxville-based Kahn Construction Co. is still exploring the cost and feasibility of building one new high school or two. Plemons said both groups will share their results soon.

Woody, a Midway High School mathematics teacher, told the group he thought the county should focus on providing a stronger elementary program, which he thinks would increase the probability of success for students later in their academic careers.

Sills, principal of Walnut Hill Elementary School for 24 years, said he wants to try new, innovative ideas that have proven successful at his school.

"I want us to be more dynamic, I want us to get things done," Sills said.

Among other achievements, the Harriman city school was the first in the county to receive accreditation from the Southern Association of Colleges and Schools.

Sheriff candidate Charlie Rodgers was the only candidate in his race to attend the event. He spoke of the need to address the drug problem in the county.

"There is a need to get control of the county drug problem. I think there is a need to look at the problem in the school system and I would like to work in cooperation with the superintendent to address the problems there," Rodgers said. Rodgers owns the C & S Service Center in Midtown.

# Is Watts Bar Lake 'cleanup' urgent?

As conservative scientists and program managers like to stress, there is, of course, a "need for more data" before definitive conclusions can be drawn or "remedial action" (what? dig up the lake's muds? and put them where, at what cost?) can be initiated at Watts Bar Lake.

And it is a rather safe prediction that there will always be a need for more data. Explorers are hardly ever satisfied in that regard — and in the meantime, the public wonders about the meaning of "no imminent" or "no short-term" danger and continues to be concerned.

As I tried to point out in my prior column, an excess of conservatism on any one issue is not necessarily in society's interest. Besides, in this case, there had been hardly any preparation of the public prior to the release of the "preliminary and tentative" reviews.

For too many weeks, the public stage had been surrendered to the quite predictable, fearmongers. Notwithstanding the eventual public meetings, there still haven't been any succinct, clarifying statements by responsible top Department of Energy or Martin Marietta Energy Systems Inc. officials.

Rashes of national magazine articles and innuendoes by eager news reporters are continuing. Those of us who live on the lake still get frequent questions and expressions of concerns about uses of the lake, from local people as well as from visiting tourists. Many local technologists are thus starting to wonder whether it really is in the public interest to allow or, in effect, feed the continuation of concerns for which there seems to be absolutely no justification from the data at hand!

In this column and the next, I shall try to summarize my impressions from the reports, meetings and followup discussions. And I urge any involved investigators or reviewers to enlighten us, if they feel that any of these impressions are in error.

First of all, by far the biggest mortality and injury risks at Watts Bar Lake have nothing to do with Oak Ridge or nuclear or other industrial activities. They result from accidents due to fun activities like boating, skiing and swimming.

Next, assuming that you are not in the habit of eating the muds, there could be serious health risks if you drank too much lake water — not just a rare swallow or two which any swimmer or skier would get. After all, lake water is untreated, and most lakes contain all sorts of infectious bacteria, including "E-coli" from human and animal wastes, along with all sorts of viruses, smelly algae, etc., etc.

None of this is unique to Watts Bar Lake. And not even the most ardent antinukes have questioned these rankings.

According to some investigators and regulators, the next most important contaminants of many lakes in the industrialized world are what all media like to refer to as "known cancer-causing PCBs." PCBs have been used for many years in the manufacture and operation of electrical motors, transformers, etc.

## Guest Column

JOHN SHACTER

And most experts seem to agree that past human (not just animal) experiences — even with concentrations of PCBs much higher than those in the lake muds or even in bottom-feeding fish — do not justify general adjectives like "known cancer-causing," as far as people are concerned. In any case, it is still a highly disputed issue.

Regardless of the outcome of that dispute, it would be prudent, indeed, to avoid a "lifetime" (70 years assumed in the studies) of mass consumption of bottom-eating fish — or, for that matter, any other single food item. And it is well known that pregnant women or young children would tend to be more sensitive to such imprudent excesses than the general public.

Note next that the radioactive elements (mostly Cesium-137) and mercury, the two unique Oak Ridge releases of the mid 1960s, have since been so widely distributed along the river bottoms and so buried under a yard of subsequent mud deposits, that they have been, in all probability, eliminated as health hazards!

In part I, of this column, I reported to you that you would receive anywhere from zero to 5-6 "ESH" (Equivalent spouse hugs) units if you were in direct contact with the dug-up muds of Watts Bar Lake. (Generally more at the deeper stretches and less at the shallow edges.) You will recall that all of us humans contain traces of radionuclides, as well, and that the actual "hug exposures" from your favorite human partner (and of course from your own body) would rival those of the more imaginary hugs of the muds.

At mud levels of 5-6 ESH, you would have to hug your favorite human partner five to six times as long or often to get approximately the same exposure. Or — paraphrasing the Harriman remarks of Dr. Bill Parkinson of the Roano-Anderson Professional Society — since we are in more frequent contact with people than with muds, shouldn't we get rid of people before we think of getting rid of the radioactivity in the muds?

Obviously, sources of harmful releases need to be identified and sharply curtailed or stopped. Everyone is already focusing on that. There is a strong drive on to minimize wastes of all sorts and to improve the safety and effectiveness of old and new disposal methods. Waste treatment technologies and industries are in a period of rapid growth. And the local emphasis is already placing this region in a position of leadership.

I plan to continue the list of conclusions and "remedial actions" in my third and last column on the subject.